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# Croplife

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EVERY  
MONDAY

WEEKLY NEWSPAPER FOR THE FARM CHEMICAL MANUFACTURER, FORMULATOR AND DEALER

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No. 20

## INDUSTRY WEEK

### Calumet Nitrogen Products Co. Begins Construction of New Anhydrous Plant

HAMMOND, IND.—Construction of the first nitrogen products plant in Indiana—and the largest in the U.S. to make anhydrous ammonia from refinery by-product hydrogen—started here May 9. It is scheduled to begin producing farm plant foods in May of 1956. It will also manufacture nitrogen products for industry.

The plant is being built by Calumet Nitrogen Products Co. on a 24-acre tract north of the Calumet Canal at Hammond. It is designed

(Continued on page 21)

### Northern Chemical Industries Lets Contract for Sulphuric Acid Plant

SEARSPORT, MAINE—Northern Chemical Industries, Searsport, Maine, announced placement of contract with Leonard Construction Co., Chicago, for its second Monsanto type contact acid plant. J. E. Totman, president, said the plant will have a rated capacity of 100 tons per day of 100% sulphuric acid.

Combined with its present plant, NCI will have a total rated daily capacity of 170 tons, with actual up to 220 tons. Tank storage will be increased to 4,000 tons.

This added acid capacity is necessary to provide for the firm's increased chemical business which includes liquid alum for the pulp

(Continued on page 21)

### Central Farmers Fertilizer Co. Plans to Build Phosphorus Furnace in Idaho

MONTPELIER, IDAHO—Central Farmers Fertilizer Co., which represents 16 Midwest cooperatives, has announced plans for construction of a 1000 KVA electric furnace at Georgetown Canyon near here for production of elemental phosphorus.

Cost of the completed facilities will be more than \$10 million. If contracts for electric power can be signed early in 1955, construction of the elementary phosphorus unit might start in 1956.

(Continued on page 21)

### Liquid Sulphur Shipments in Insulated Barges Started on Mississippi River

— See Picture on Page 21 —

PORT SULPHUR, LA.—A new method of shipping sulphur over long distance water routes—as a liquid instead of a solid—was inaugurated here recently.

The first two of three new insulated barges each took on a 2,500-ton cargo of melted sulphur at a temperature above the boiling point of water and began a tow up the Mississippi River to a plant 1,100

(Continued on page 21)

### Hercules Oxychemical Plant on Stream

WILMINGTON, DEL.—The new multimillion dollar oxychemical plant of Hercules Powder Co. at Gibbstown, N.J., is now on stream, the company announced.

Designed to produce annually 26 million pounds phenol, some of which will be used in the manufacture of agricultural chemicals, the plant will also produce each year 16 million pounds acetone as well as alpha-methylstyrene, acetophenone and hydroperoxides.

Another Hercules project now underway includes joint construction, with Alabama By-Products Corporation, of a new plant near Birmingham, Ala., which will annually produce 45,000 tons anhydrous ammonia.

### Miller Expands Fertilizer Facilities

BALTIMORE—The Miller Chemical & Fertilizer Corp. has acquired the former feed plant of Bradley & Baker at 1520 S. Clinton St. here. It is being renovated and enlarged, and equipment is being installed for the manufacture of mixed fertilizer. It is expected that the plant will be ready for occupancy by June.

Plans also call for the transfer by the firm of its plant at 1415 Philpot to the new location. About 2,000 sq. ft. are being added to the one-story, 10,000 sq. ft. structure.

### House Approves Rigid Farm Price Support Measure

WASHINGTON—By a thin margin and operating under tight party discipline, the Democratic majority in the House recently forced through approval of the bill which would repeal provisions for the flexible support program for basic farm commodities.

The effect of the measure, if subsequently adopted by Congress, would be to restore the rigid price support level of 90% of parity for the basic commodities and eliminate the transitional parity provisions of the farm act of 1949.

The bill adopted by the House, by a vote of 206 to 201, provided some small comfort to the adherents of Ezra Taft Benson, secretary of agriculture. They foresaw that even if the Senate would consider the measure, it probably could not be adopted over a presidential veto.

In the Senate Agriculture Committee, Sen. Allen J. Ellender (D., La.) has expressed little sympathy with amending of the farm act at this session of Congress.

### Peanut Marketing Quota Increased

WASHINGTON—The U.S. Department of Agriculture has announced an increase of 7½% in the peanut marketing quota — from 740,600 to 796,145 tons — and in the individual peanut acreage allotments for the 1955 crop of peanuts.

### Fertilizer Company Chartered in Illinois

SPRINGFIELD, ILL.—Mavco Fertilizer Co. has been chartered here. Incorporators are Miss Mary Elizabeth Quinn, Norman P. Jones and George K. Blanchard. The firm was authorized to issue 10,000 shares of stock at \$10 a share.

### Farm Chemicals Firm Formed in Kentucky

LOUISVILLE—The Kentucky Farm Chemicals & Service Co. has been chartered here with capitalization at \$250,000. Incorporators are Robert J. Williams, Larrie W. Williams, W. Wilson Branch and James B. Andrews. The firm will manufacture and deal in fertilizer and other farm chemicals.

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## Campaign for Clean Grain To Broaden

### Expanded Market For Protectants Seen in USDA Moves

By JOHN CIPPERLY

Croplife Washington Correspondent

WASHINGTON—Trade and government sources here see an expanding market for grain protective products as the U.S. Department of Agriculture and Food and Drug Administration draw closer together in a campaign to promote higher sanitation standards for the nation's cereal supplies.

It is now known that USDA is about to send to FDA an outline of its plans to educate farmers and warehousemen on the over-all problem of sanitation for all grains. Among these educational efforts, it is expected, will be printed material addressed to wheat farmers citing their responsibility for the condition of grain delivered to Commodity Credit Corp. on loan defaults.

Failure to meet FDA standards on rodent contamination or weevil infestation on future crops will require a discounting of the farmers' price. For present defaults on CCC wheat loans, the government has announced that it will not penalize the wheat farmer.

However, on future crops, the 1955 wheat crop for example, the government will discount farm deliveries of loan-defaulted wheat that fail to measure up to FDA rodent and weevil tolerances. For such deliveries, the discount will be taken off the farmers'

(Continued on page 17)

## Administration Acts To Study Problems Of Marginal Farms

WASHINGTON—The White House has sent to Congress broad recommendations for legislation and appropriations for a campaign to attack and eliminate serious economic difficulties among as many as one fourth of the families now living on farms.

The recommendations followed a report issued by Ezra Taft Benson, secretary of agriculture, on the problems of low income farm families entitled "Development of Agriculture's Human Resources."

Essentially, the Benson report is aimed at small marginal or not fully profitable farms where operators are basically unable to attain minimum income standards. His method of attack on this large problem would be through pilot operations each year, expanding these operations as ex-

(Continued on page 20)



## Grace Moving Headquarters to Memphis; William J. Haude Named General Manager

MEMPHIS — Headquarters of Grace Chemical Co. are being transferred from New York City to Memphis, according to an announcement by Charles E. Wilson, chairman of the board.

Declaring that the change was being made in the interest of greater operating efficiency, Mr. Wilson noted that the move was also motivated by "the excellent facilities offered by Memphis, which is the center of our Mid-South marketing area."

William J. Haude, formerly vice president in charge of marketing, will be in charge here as vice president and general manager. John G. Carriere, presently plant manager of the ammonia-urea plant located at Woodstock, near Memphis, has been named vice president and plant manager.

Plans to increase the local plant's ammonia capacity and additions of new process plants are under consideration.

At the same time the establishment of a new division of W. R. Grace & Co. to spearhead anticipated further expansion in the chemical manufacturing and processing fields, was announced.

The new organization, to be known as the Grace Chemical Research and Development Company Division, will be headed by William P. Gage, formerly president of Grace Chemical Co. Elwyn E. Winne will be vice president.

More than 50% of W. R. Grace & Co.'s net fixed assets are now invested in the chemical manufacturing and processing industries, as compared with less than 3% in 1950.

## MCA Head to Report On Chemical Progress

NEW YORK — The ten most important chemical advances of the last 35 years will be reported by William C. Foster, president, Manufacturing Chemists' Assn., on the "Cavalcade of America" television program for May 17. The selection of the ten most important chemical advances was made by a panel of leading businessmen, educators, scientists and journalists.

Mr. Foster will appear in connection with "Chemical Progress Week," being celebrated nationally May 16-21. The purpose of the week is to explain the significance of chemistry in terms of the daily life of the individual.

## COASTAL BERMUDA PLOTS

BLACKSBURG, VA. — Thirty nine Coastal Bermuda demonstration plots have been set up in 22 counties in Virginia.

## First Beltwide Cotton Production Conference Set

MEMPHIS—The first annual Beltwide Cotton Production Conference will be held Dec. 15-16 at the Peabody in Memphis, the National Council has announced.

This represents an integrated approach to four major production problems — insect control, defoliation, chemical weed control, and disease control. Previously, the council sponsored separate conferences on these problems except disease control.

The new meeting will highlight specific jobs that farm chemicals do in cotton production, but its scope will be broad enough to cover interrelationships between chemicals and all other production factors.

Attending will be research and education workers from land-grant colleges, U.S. Department of Agriculture and vocational agriculture, as well as representatives of commercial firms concerned with manufacturing, distributing or applying farm chemicals.

Meanwhile the council has issued a report on proceedings of the eighth annual Beltwide Cotton Insect Control Conference, held last December in Dallas. (See page Dec. 6 issue of Croplife.)

In addition to a summary of the conference the publication includes state-by-state recommendations for 1955, precautions for handlers and users of insecticides, brief information concerning principal insecticides recommended, general guides for application methods and a list of state extension and research entomologists.

Most of the 11,000 copies printed are being sent to commercial personnel concerned with cotton insect control, to extension and vo-ag workers in cotton states, and to other personnel concerned with recommendations two or more states.

## Hercules Appoints Sales Manager for Nitrogen Products

WILMINGTON, DEL. — The appointment of Robert W. Crabtree to the newly-created position of manager, nitrogen products sales, has been announced by J. M. Martin, general manager of Hercules Powder Co.'s Explosives Department. Crabtree's headquarters will be in Wilmington.

In his new position Mr. Crabtree will supervise the sales of nitrogen products produced at the company's plants in Louisiana, Mo., and Hercules, Cal. These products include ammoniating solutions, anhydrous solutions, ammonium sulfate, and ammonium nitrate.

The newly-created position to which Mr. Crabtree has been appointed marks an expansion of Hercules activities in the fertilizer field.

Mr. Crabtree, who has been with Hercules since 1934, has been sales manager for nitrogen products in San Francisco. He will be succeeded in that position by R. E. Segerdell.

## C. H. Haas Co. Adopts New Name

MODESTO, CAL.—The C. H. Haas Co. here has changed its name to Haas Ammonia & Fertilizer Co. according to C. H. Haas, president. The firm has added anhydrous ammonia and aqua ammonia to its dry fertilizer business and the "new name will be more appropriate and descriptive of the purposes and objectives of the company." All personnel will continue in their present capacities and the office remains in the same location, three miles south of Modesto.

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C. J. Watts, Jr.

## J. Watts, Jr. Named to CSC Sales Position

NEW YORK—C. J. Watts, Jr. has been named to the position of Sales Manager of the Agricultural Chemicals Department of Commercial Solvents Corp. it was announced recently by Clyde Marshall, general manager of the department.

Mr. Watts will handle the sale and distribution of CSC ammonium nitrate to the fertilizer trade in the southeastern states. A graduate of Tennessee Wesleyan College, Mr. Watts was formerly with the Davison Chemical Co.

## Committee on Fertilizer Application Plans August Meeting

DAVIS, CAL.—The National Joint Committee on Fertilizer Application and the American Society of Agronomy have scheduled a cooperative program Aug. 15, at the University of California here. Presiding at the session will be D.G. Aldrich, Jr., University of California, vice chairman of the National Joint Committee on Fertilizer Application.

Papers scheduled to be presented at the meeting include the following: "Unsolved Problems of Soil Fertilization in the West," by Frank G. Viets, technical staff specialist, Western Regional and Water Management Section, U.S. Department of Agriculture, Fort Collins, Colo.; "A Comparison of the Fertilizer Value of Gaseous, Liquid, and Solid Forms of Ammonium-Containing Nitrogen Compounds," by O. Lorenz, associate professor, Department of Vegetable Crops, University of California, Davis, Cal.

"Application of Fertilizers Through Sprinklers," by D. W. Henderson, assistant professor, Department of Irrigation, University of California, Davis, Cal.; "Irrigation - Fertilization Relationships As They Affect Yield and Quality of Sugar Beets," by Jay L. Haddock, soil scientist, U.S. Department of Agriculture, Logan, Utah, and Sterling A. Taylor, soil physicist, Department of Agronomy, Utah State College, Logan, Utah; "Recent Developments in Farm Tractor and Improved Crop Yields in the West," by B. A. Krantz, area supervisor, Western Soil & Water Management Section, U.S. Department of Agriculture, Billings, Mont.

## NAMED MANAGER

ELMIRA, N.Y.—Robert G. Campbell, formerly farm supply department manager at the Elmira Cooperative GLF, has been named manager of the Cuba, N.Y. store. He started work with GLF in 1948 and was made farm supply department manager two years later.

## Mixtures Used on Half Million Acres in South Carolina

CLEMSON, S.C.—A brief summary report of progress in use of insecticide-fertilizer mixtures in South Carolina is given in Insect and Plant Notes prepared by specialists of the Clemson extension entomology and plant disease work.

The specialists point out that since 1948, when insecticides were first used to control the sand wireworm, there has been considerable expansion of the use of insecticide-fertilizer mixtures. Combined totals of surveys made annually show that more than one-half million acres of crop land have been satisfactorily treated with insecticide-fertilizer mixtures. Usage reached a high point last year when over 108,000 acres were treated.

However, all soil insect control has not been effected by means of insecti-

cide-fertilizer mixtures or by seed treatments. A large amount of granular insecticides has been applied, especially to control the white-fringed beetle, as a part of federal-state programs directed by the Crop Pest Commission of Clemson College. Insecticide dusts and sprays are also being used.

The surveys show that insecticide-fertilizer mixtures have been used on the following crops and acreages to control the pests listed: corn, approximately 100,000 acres, to control sand wireworm, southern corn rootworm and seed corn maggot; Irish potatoes, more than 5,000 acres, to control wireworms; sweetpotatoes, 1,000 acres, wireworms and elongate flea beetles; snap beans, 1,000 acres, seed corn maggot; cotton, acreage unknown, sand wireworm; and pastures, 1,200 acres, white grubs.

The surveys also show that these

mixtures have proved effective in the coastal trucking area to control mole crickets, but the acreage is not known. Their use on lawns to control white grubs is increasing, and apparently when the white grubs are killed ground moles tend to go to other areas.

"Little, if any, of the insecticide-fertilizer mixtures have been used to control the Japanese beetle, an insect now invading the state from around Caesar's Head, but it is expected that larvae of this insect, a white grub damaging sods, will be controlled with these mixtures," the specialists state.

## FLORIDA CONSUMPTION

TALLAHASSEE, FLA. — Florida fertilizer consumption during March totaled 186,707.3 tons, according to the Florida Department of Agriculture. This included 139,703.8 tons of mixed fertilizer and 47,003.5 tons of materials.



## GIANT SERVANT OF AGRICULTURE

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# INSECT, PLANT DISEASE NOTES

## Cool Weather Slows Insects in Colorado

FT. COLLINS, COLO. — Although insect development was slowed down by the extreme range in high and low temperatures during February and March, the pale western cutworm is presently causing trouble. Late in April, it was reported in damaging numbers in wheat growing in Logan County, and there have been scattered reports on the pale western cutworm in other eastern Colorado areas.

Brown wheat mite has been found in light infestations in Prowers county wheat and in medium infestations in wheat growing in Bent County. Green bug has appeared in very light numbers in spring barley in Prowers County.

Army cutworm has made its appearance in alfalfa in Weld, Prowers and Bent Counties, in winter barley growing in Boulder County and in wheat in Cheyenne and Kiowa Counties. The infestation is extremely heavy in some areas.

## Armyworms Feature Mississippi Report

STATE COLLEGE, MISS. — Army worms are present in large numbers in small grain fields throughout the Mississippi Delta and will cause severe damage unless controlled. Cotton planting is well underway and many good stands are evident especially in the southern part of the state.

In Leflore County, J. S. McBee, county agent at Greenwood, report-

ed armyworms showing up in large numbers in practically all small grain. He advised farmers to use insecticides immediately before the worms are large enough to destroy the grain crops.

Army worms are damaging oats and grasses; cutworms are damaging legumes in Bolivar County, also, according to T. Y. Williford, county agent at Cleveland. In Choctaw County, little insect damage to grains is evident, said R. A. Simmons, county agent at Ackerman. Oats and other grains are looking good.

## Aphids, Weevils Do Damage in Virginia

BLACKSBURG, VA. — Pea aphids and alfalfa weevils are still doing heavy damage to alfalfa in many counties of the state. All counties have pea aphid infestations, and some are unusually heavy.

Alfalfa weevil infestations have been found in several additional counties bordering North Carolina from Halifax east, and as far west as Amherst. Insecticides will be needed on many fields. Colorado potato beetles are damaging newly set tomato plants in Northumberland, and are also reported causing heavy injury to potatoes, corn and beans in Grayson.

## Florida Summarizes Its Insect Conditions

GAINESVILLE, FLA. — A summary of insect conditions in Florida, as reported by H. A. Denmark, collaborator, indicates that cutworms are causing considerable damage to various crops over the State. Control measures are required in most cases.

In the north, both tobacco hornworms and budworms are reported to be infesting tobacco at Gainesville and several pecan pests are causing moderate damage to pecan trees at Monticello. In the west, hornworm eggs are being found on sun tobacco at Quincy.

## Iowa's Corn Borers Beginning to Pupate

AMES, IOWA — Pupation of corn borer in Central Iowa was about 17% May 7. First moths of the corn borer were expected in the southern part of the state around the 12th and in central Iowa by the middle of the month. Northern Iowa was expecting moths as late as the 20th.

Large numbers of seed corn beetles have been found in plowed fields. Armyworm moths have shown up in light traps near Ames, and black cutworm moths are feeding on lilac blossoms at night. The moths appeared about a month early.

Grasshoppers are hatching in west central and southeast Iowa. Species included *M. bivittatus* and *M. mexicanus*, from newly-hatched to half grown. Alfalfa butterflies are on wing in western Iowa alfalfa fields. The crop is expected to keep ahead of the worms, however.—Harold Gunderson.

## Corn Borers Getting Under Way in Illinois

URBANA, ILL. — Accelerated corn borer development, and pupation have begun throughout most of Illinois. On the basis of previous experience, this is approximately 10 days earlier than normal. However, with dry conditions in the fields, pupation has stopped and will not start again until we have some rainfall. Pupation will continue at a rapid rate, however, with rain and moderate temperatures.

Concentrations of chinch bug adults have been reported in wheat fields in southwestern Illinois, and feeding

has caused some damage. In central and eastern Illinois, chinch bugs are now concentrating in thin stands of wheat and in some oat fields. The bugs have not yet become completely established, and there may be further flights of adults.

Armyworm moth flight is still moderately heavy throughout much of the southern half of Illinois. In the southern third, small armyworms are reported to be abundant in winter barley, oats, and rye. No worms have yet been found in central Illinois, but they will probably appear this week. Cutworms, although not yet a problem, may develop in some of the earlier planted corn fields.

Sweet clover weevil has severely damaged new seedlings of sweet clover, but a fungus disease has almost eliminated this pest during the past week. Pea aphids, although on the increase, do not yet present a problem in hay production.—H. B. Pettit.

## Tobacco Pests at Work On South Carolina Crop

CLEMSON, S.C. — The tobacco flea beetle is appearing in large numbers on newly-set plants throughout most of the tobacco-producing areas of the state. Adults of the vegetable weevil are injuring tobacco plants in the field near Aynor, S.C., and the tobacco budworm has appeared in larval form on newly set plants. The latter pest is an unusually early appearance this year.

Boll weevil activity in hibernation cages during March and April was higher than was noted at the same time last year.

## European Red Mite Reported in New Jersey

NEW BRUNSWICK, N.J. — Many orchards are showing European red mite activity. Red banded leaf rollers have been observed all over the state. In Cape May County, eggs were changing color several days ago and would soon be hatching, as egg-laying activity of the pest continues.

The early fringe of codling moth emergence has begun in some areas of southern New Jersey. European apple sawfly eggs were being laid on apple blossoms in Bergen County early in May in unsprayed orchards.

Recent reports of surveys on alfalfa fields from Camden County south to Cape May show very high larval and adult alfalfa weevil populations in a majority of the unsprayed alfalfa fields. Growers were given instructions to harvest early to avoid defoliation of first cutting, and the to spray the stubble.

## Codling Moth Adults Increasing in Indiana

VINCENNES, IND. — The number of plum curculio adults in unsprayed peach orchards has increased in the past two weeks. Protection from injury by this pest, in apple orchards is still needed for this area. To date the number of egg laying punctures found has been light and no severe first brood damage is anticipated in commercial orchards.

Enough red-banded leaf roller egg masses have been noted in the Covington-Indianapolis area to warrant the use of TDE for control of first brood larvae. Infestations in the Vincennes area continue to be light and can likely be controlled by the lead arsenate that is generally included in the spray schedule.

Codling moth adults began emerging at Vincennes the night of April 2 and emergence has increased daily since that period. Although no eggs have been observed, weather conditions are ideal for heavy oviposition.

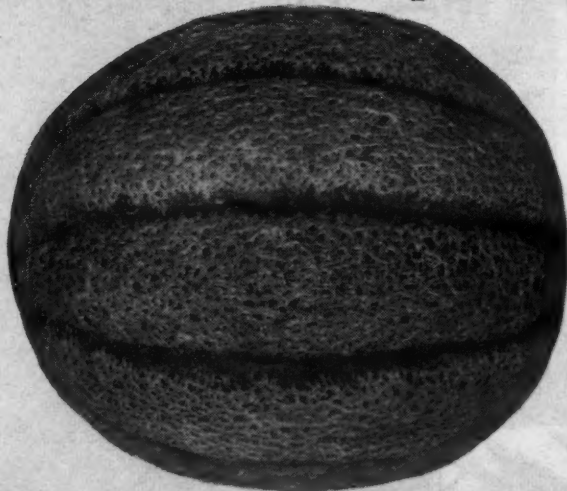
Army worm adults have been coming to bait traps in the vicinity of Vincennes since April 17. Captures

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ults are higher than in 1954. Peak  
ight of spring brood moths has either  
en reached or is near, as 5 traps  
aptured 169 adults the night of May  
Last season feeding larvae were  
st observed May 10. It seems likely  
at a similar outbreak will occur  
ain this season.—D. W. Hamilton.

### Yellow Clover Aphids in New Mexico

STATE COLLEGE, N.M. — Thrips  
continue to be a problem in several  
areas of the state. They are reported  
causing injury to tips of alfalfa  
the Pecos and are building up on  
ions in the Mesilla Valley. Con-  
siderable onion acreage has been  
eated once and some fields have  
ad a second spraying.

Seed corn maggot is reported as  
causing considerable injury to cotton-  
ed in the Lake Arthur area. This  
sect combined with some damping  
is making replanting necessary in  
me fields. Cutworms are causing  
considerable concern in the lower  
ecos Valley of New Mexico and are  
pected momentarily in the Mesilla  
alley area.

Yellow clover aphids continue to be  
the major insect pest of New Mexico.  
They are continuing in epidemic pro-  
portions in the Pecos and are becom-  
g more and more numerous in the  
Mesilla Valley and the Hatch Valley  
as also turned up an epidemic.

### Soil Insecticides Termed Best for Missouri Use

COLUMBIA, MO.—Cutworm dam-  
age to seedling corn is beginning to  
show up. There is every indication  
that this damage will increase as  
more corn begins to come up. Spring  
flights of the black cutworm moth  
have not been unusually heavy to date  
which would indicate that the over-  
wintering dingy and clay-backed cut-  
worms are the ones which will hurt  
ded leaf rolls most.

Fields going to corn, but not yet  
planted, should be checked carefully.  
We still think soil insecticides—aldrin  
or heptachlor at 1½ lb. an acre—are  
the best bet on corn land not yet  
planted. Working the insecticide into  
the soil seems to be important in  
getting a quicker kill.

The grasshopper hatch is now  
well under way and the next couple  
of weeks will be the critical time  
for early season control.

Armyworm moth flights continue  
over the state and in the south Mis-  
souri area many small armyworms  
are found. Some fields are fairly  
heavily infested and will need spray-  
ing if parasites don't take the worms  
out.—Stirling Kyd and George W.  
Thomas.

### Cutworms Damaging Georgia's Peanuts

ATHENS, GA. — Several cutworm  
infestations are destroying peanut  
and cotton stands in several counties.  
No doubt many other crops are being  
attacked also.

Toxaphene or DDT dusts or sprays  
will control cutworms if applied to  
the soil around the plant stems. Ten  
to 15 lb. of 20% toxaphene or 10%  
DDT dust should be applied per acre  
if dust is to be used. For sprays,  
use sufficient concentrate to give 2  
to 3 lb. actual toxaphene or 1 to 1½  
lb. actual DDT per acre.—C. R.  
Jordan.

### Alfalfa Weevil Leaves Destruction in Delaware

NEWARK, DEL.—Neglected fields  
of alfalfa in southern Kent and Sus-  
sex counties are a complete loss due  
to activities of the alfalfa weevil.  
Pea aphid destruction is state-wide  
on both alfalfa and clovers. Garden  
bees were infested in Sussex County,  
with light populations in commercial  
plantings in Milford, Ellendale and  
the vicinity of Milton areas.—L. A. Stearns and J.  
W. Heuberger.

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## Anhydrous Application Makes Available Other Nutrients, Say Missouri Scientists

MEMPHIS — Tests recently completed by the University of Missouri show that the application of nitrogen in the form of anhydrous ammonia makes available to growing crops, substantial quantities of other plant food elements.

Measurements were made by Dr. George E. Smith of the Soils Department and Frank A. Stanley, a graduate student. They are reported in the article, "Proper Application Improves Value of  $\text{NH}_3$ ," which is carried in the April-June issue of Agricultural Ammonia News.

Jack F. Criswell, executive vice president of the Agricultural Ammonia Institute which publishes the News, said, "The nation's farmers will be deeply interested in the Missouri findings, because for the first time they now have an accurate basis for evaluating wholesome complementary advantages from the use of anhydrous ammonia."

The Missouri soil scientists made their tests in silt loam soil. In using 100 lb. anhydrous ammonia per acre, they found that the synthetic nitrogen made available 47 lb. additional phosphate and more than 4 lb. additional potash which already was in the soil.

Dr. Smith and Mr. Stanley also showed that ammonia upon application increases the pH in the soil.

Due to the fact that the ammonia gas appears to diffuse in the soil under average conditions to around four inches in all directions from the point of application, the soil scientists said it would appear that preplant and off-season applications should be practiced where possible, using closer spacings than the standard 40-inch row width.

They also found that ammonia losses were low when applications were made in soil at optimum 15-18% moisture content. The loss was only 1% in 36 hours, even though applied only 3 in. deep.

They further concluded that dry soils hold ammonia far better than extremely wet soils.

The Agricultural Ammonia Institute, representing producers, distributors and users in more than 40 states, has plans for reproducing the findings of Dr. Smith and Mr. Stanley in a technical bulletin. The bulletin is available upon request to the institute, Claridge Hotel, Memphis, Tenn.

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J. Jerome Thompson

**PFIZER DIRECTOR** — J. Jerome Thompson, manager of the agricultural division, has been elected to the board of directors of Chas. Pfizer & Co., Inc., Brooklyn. Mr. Thompson joined Pfizer in 1949 and when the agricultural division was established in 1952, he was selected as its head. Also elected to the board of directors were Allan J. Greene, director of commercial development, and Edwin H. Smith, controller.

## J. C. Crissey, GLF Veteran, Honored

ITHACA, N.Y.—J. C. Crissey, manager of the Soil Building Division of the Grange League Federation Exchange, Inc., was honored for 30 years of service with G.L.F. at a dinner held in Ithaca, N.Y., recently. C. N. Silcox, general manager, presented him with an award.

The 30-year record makes Mr. Crissey one of the pioneers of G.L.F. was founded in 1920, five years before Crissey joined the organization.

Mr. Crissey came to G.L.F. in 1925 as a district manager for New Jersey and Long Island from county agent work in Salem County, New Jersey. He worked in a number of executive capacities in G.L.F., joining the Soil Building Division in New York in 1938. He was named chief executive of that division in July, 1941, and has continued in that capacity to date.

An active farmer all his life, Mr. Crissey's farm is a combination fruit and dairy farm near Glenwood, N.Y., and has been in the family since 1770. His seed raising hobby was interrupted for nine years until he acquired a second farm in 1939 in Steuben County where he raises seed potatoes, seed oats and grass seed.

During World War I Mr. Crissey served as flight commander of the 22nd Area Squadron, 2nd Pursuit Group and in 1918 earned an air service citation.

In 1919 he worked with the North milk investigation at Rochester, N.Y., and then went to Jersey as county agent. While a county agent, he organized the Salem-Cumberland Holstein-Friesian Assn. helped organize and was president of "The Kandle Club" Cooperative Seed Potato Growers Association in South Hersey. It was then that started his long career with G.L.F. Mr. Crissey, who is a native of Glenwood, N.J., received his B.S. degree from Cornell University.

## FARM WORKER INVESTMENT

WASHINGTON — Behind each of the 8½ million farm operators, his hands and family workers on U.S. farms, there lies an average capital investment of about \$14,000, according to the U.S. Department of Agriculture economists.



## Benson to Meet Governors to Attack Drouth Problems

WASHINGTON—Following a two-day inspection tour of drouth areas in Colorado, Kansas, Oklahoma, Texas, and New Mexico, Ezra Taft Benson, secretary of agriculture, announced April 27 in Tucumcari, N.M., that he will invite governors of the Great Plains states holding membership in the Great Plains Council to meet with him in Denver the evening of June 1.

This meeting will comprise an important part of conferences of the Great Plains Council, four of its committees and the newly-formed drouth action committee appointed by the secretary in the U.S. Department of Agriculture. These groups will meet May 31 and June 1 to discuss programs for the consideration of the governors and the secretary. They will meet again June 2 to draw blueprints for programs of mutual interest to the states and USDA. The states involved are Montana, North Dakota, South Dakota, Wyoming, Nebraska, Colorado, Kansas, Oklahoma, New Mexico and Texas.

"The purpose of this meeting," the secretary said, "is to treat not the effects, but the causes, of drouth damage. Our action committee in the department is hard at work on plans for long-range programs. The Great Plains Council for years has vigorously worked on drouth problems. Four of the council's sub-committees—those on water resources; on economics of land use adjustment, credit and tenure; on livestock and feed reserves; and on management of land resources—deal with matters especially close to USDA.

"We hope at Denver to bring together all the available information which can be used as a basis for sound, long-range programs to combat drouth and wind erosion. Our broad objectives are to help farm people achieve the goals they themselves desire. The job must be done on the farms and ranches. The government must help, not dictate. It must help develop the information farmers need to make wise management decisions. Farmers and ranchers will make wise decisions if they have the facts.

"USDA policy calls for no government land-grab program. We do not intend to recommend government purchase of so-called 'marginal land.' Marginal land is a relative term," the secretary continued.

### South Carolina Fertilizer Meeting Plans Set

CLEMSON, S.C. — The annual South Carolina fertilizer meeting will be held at the Sandhill Experiment Station, 14 miles northeast of Columbia, June 2. The following summary of the program has been released by R. F. Poole, president of Clemson Agricultural College.

Registration will be at 8 a.m. and at 9 a.m. the group will start tours of the station. The group will observe plant food deficiency symptoms, fertilizer experiments and yield tests on alfalfa, cotton and peaches. Also included will be observations on lawn and pasture grasses, forest management, fish pond management and palmetto Sesame.

Following lunch at the station brief talks will be given by R. M. Cooper, president of the Clemson board of trustees; Mr. Poole; Dr. M. D. Farrar, dean of the School of Agriculture; Dr. W. Watkins, director of the South Carolina Extension Service; Dr. R. W. Carter, state veterinarian; Dr. O. B. Harrison, director of experiment stations; Dr. J. W. Jones, director of agriculture teaching, and W. H. Rhodes, superintendent of the Sandhill Experiment Station.

At 3 p.m. the group will inspect the Clemson Livestock Laboratory.

"What is marginal this year may not be marginal next year as prices change or weather conditions improve.

"What we hope to achieve is a broad, aggressive, well-coordinated attack on the causes of drouth damage and wind erosion. Soil—and the freedom to operate it—is basic to the agricultural and national economy.

"We are aiming at action, not just study. We expect that these joint meetings will result in basic blueprints that can be adapted to the needs of the individual states."

Secretary Benson also stated that he expected to invite representatives of farm organizations and commodity groups interested in Great Plains problems to Washington to meet with him later in June.

## Plans for Pacific Northwest Fertilizer Conference Set

BOISE—The sixth annual fertilizer conference sponsored by the Pacific Northwest Plant Food Assn. will be held at Boise June 28-29, and from early indications a record attendance is anticipated.

The program is being arranged by the Soil Improvement Committee of the association and will feature as its principal speaker Dr. Roger Bray of the Soils Department of the University of Illinois at Urbana. Featured for the first time this year, too, will be talks on aerial fertilization, a broadening method of application in the Pacific Northwest.

Morning sessions will be held June 28 and 29 with field trips planned for the afternoons of both days. The first day a field trip will take visi-

tors to the Branch Experiment Stations at Parma, Idaho, and Ontario, Oregon, and to the Amalgamated Sugar Co. fertilizer field trials for observation and results of fertility work.

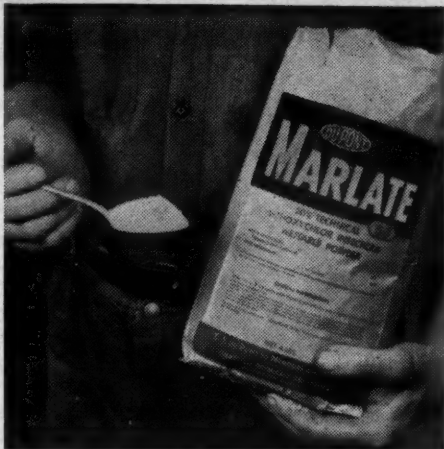
June 29 there will be a field trip to the Branch Experiment Station at Caldwell, Idaho, and the Wayne Naugle farm for observation and results from fertilizer use. There will also be demonstrations of aerial and injection applications of fertilizer.

Noon luncheons will be held June 28 and 29 at the Boise Hotel with a banquet scheduled the evening of June 28. Charles G. Painter of the University of Idaho Extension Service at Boise, Idaho, is general chairman of the conference.

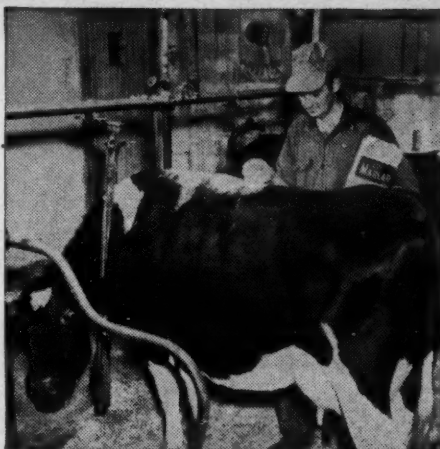
### TEST DEMONSTRATIONS

LEXINGTON, KY.—Fourteen McCracken County, Ky., farmers having TVA test demonstrations are using 136,400 lb. calcium meta phosphate.

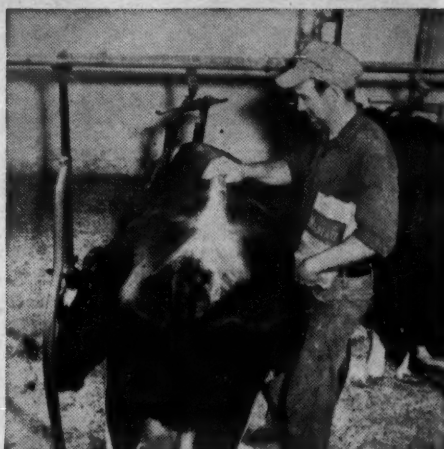
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Du Pont advertisements in these farm papers will tell your dairymen about this simple new way to kill hornflies...

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Methoxychlor Insecticide



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## Favorable Weather Hastens Spring Farm Work in Mid-South

MEMPHIS, TENN. — Excellent weather during the last 10 days has helped Mid-South farmers catch up with their spring planting. And now they need the rain.

Extension officials in Arkansas, Mississippi, Missouri and Tennessee said in their weekly crop surveys, "farmers are beginning to need rain, but the situation isn't serious yet."

Plantings of cotton, rice and corn are well under way in all parts of the Mid-South, with 90% of the cotton crop planted in some counties and less than 50% in others.

Some cotton is up to a stand and poisoning for thrips and cutworms has been started. Rain is needed to bring up late plantings.

C. A. Vines, associate director of the Arkansas Agricultural Extension

Service at Little Rock, said high winds and sun have combined to dry out the topsoil quickly despite heavy recent rains. It's a question whether some cotton planted can sprout without some additional showers, he said.

As of May 7, about 50% of this year's cotton and rice crops had been planted over the state. But in some counties—such as Chicot, St. Francis and Lafayette—planting was farther along than that, Mr. Vines said.

Farmers were busy preparing land for soybean plantings, and small grains were developing fast. Planting of early corn was reported "well along," with some corn up high enough for cultivation.

Mississippi farming activity generally centered in the cotton fields, where farmers were breaking land and planting, the Mississippi Agricultural Extension Service said.

In some areas cotton was reported as around 90% planted. In other areas, particularly in Northern Mississippi, less than 50% had been planted in some counties. Rain is

needed to bring late plantings up.

"Oats and wheat are being cut for hay and silage," said W. R. Thompson, extension agronomist. "Farmers are planting sudan and millet for temporary grazing and planting corn and sorghum for silage."

A. G. Bennett, extension entomologist, said thrips are causing a lot of damage to young cotton plants where farmers have failed to poison.

In West Tennessee, Judd Brooks, district extension agent at Jackson, reported "excellent weather conditions during the past week allowed farmers to catch up on ground breaking and planting. Crop preparation, which was lagging 10 days to two weeks behind schedule, is about up to date. Farmers have been using tractors day and night.

"Hay, pastures, strawberries, truck and garden crops are making good growth. Good crops of vetch are being turned under in the southern part of the area."



Mark B. Stringfellow

## Mark B. Stringfellow To Head Spencer Market Development

KANSAS CITY, MO. — Mark Stringfellow has been named manager of market development at Spencer Chemical Co., a newly-created marketing position.

He goes to Spencer from the Nop Chemical Co., Harrison, N.J., where he was manager of the plastics division. He was previously with the Carbide and Carbon Chemical Co., a division of Union Carbide, where he was engaged in development and engineering work.

A graduate of the University of Texas with a degree in chemical engineering, Mr. Stringfellow also had experience in the army's biological warfare program and in development and engineering at the atomic energy installations at Oak Ridge, Tenn. and at Paducah, Ky. He is married and has two children and the family is now making its home in Kansas City.

## Executives Elected At Phelps Dodge

NEW YORK — Phelps Dodge Refining Corp., New York, has announced the election of Howard Barkell to the board of directors, and Charles H. Winship, Jr., as vice president. Mr. Barkell is a vice president of the Refining Corp. and Mr. Winship is sales manager of both Phelps Dodge Corp. and Phelps Dodge Refining Corp.

## Pest Program Policy Group Meeting Set

SACRAMENTO — W. C. Jacobsen, California director of agriculture, has called a special meeting of the Long Range Pest Program Policy Subcommittee of the National Association of Commissioners, Secretaries and Directors of Agriculture to be held in Denver, May 24-25. Mr. Jacobsen, vice president of the association and chairman of the program committee for its annual meeting. The executive committee of the association will meet in Denver simultaneously with the Pest Program Policy subcommittee.

## NEW TEXTBOOK

SAN LUIS OBISPO, CAL.—Paul Dougherty, California State Polytechnic College crops department head, has completed a textbook "How to Grow Field Crops in California." It is intended primarily for usage at the high school vocational agricultural and California Future Farmer of America levels. The author describes the book as one for beginners who desire to study California field crop production. It is illustrated with sketches by Mrs. Joan Dougherty and with photographs.



# PAY DIRT

for pottery or pumpkins

In 1862, when John W. Searles, a prospector, staked mining claims on Searles Lake in California's Mojave Desert, he little knew he had discovered the richest natural deposit of diversified chemicals the world has ever known. In ensuing years triumphs in chemical engineering have enabled American Potash and Chemical Corporation to win from this vast dry lake bed millions of tons of basic chemicals vital to twentieth century life... POTASH, one of the three plant foods necessary to maintain our agricultural economy, BORAX, BORIC ACID, SODA ASH, SALT CAKE, BROMINE and LITHIUM CARBONATE used in the manufacture of glassware, ceramics, paper, enamelware and a countless array of consumer products. Constant improvement of the company's manufacturing processes at Trona, coupled with enlarged and modern research and development facilities, guarantee you a uniform and high quality source of supply.



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# Better Selling

A SPECIAL CROPLIFE DEPARTMENT TO HELP RETAILERS IMPROVE MERCHANDISING KNOW-HOW



SHOP TALK

OVER THE COUNTER

FOR THE DEALER

By EMMET J. HOFFMAN  
Croplife Merchandising Editor

Dealer-customer relationships are somewhat like the neighborhood relationships which your wife has. If your wife calls on a certain lady once or twice and isn't invited back or the latter doesn't repay the visit, chances are it won't lead to cordial relationships.

The farmer calling at the dealer's store several times a year will feel the same way your wife did if the customer isn't invited back in a sincere manner or if he isn't paid a farm visit.

An acquaintance was visiting a farmer friend who was considering building a new steer barn. The farmer said he wasn't sure where he'd buy the lumber as there were two lumber dealers in his home town and he knew both only slightly. Obviously, the farmer hadn't made up his mind where he was going to buy his lumber.

By an unusual coincidence, the young man operating lumber yard "A" drove into the yard just at that time. The young man said he had been in the neighborhood before but never had a chance to call on Mr. Gronfield to say hello. The young dealer related how the farmer had been a customer of his father's when the latter ran the lumber yard.

The young dealer visited a little bit more, didn't try to sell anything and then drove off. The farmer didn't mention a word about the steer barn, apparently trying to size up the young man.

Weeks later when my acquaintance was visiting his farmer friend again he noticed the steer barn under construction. He noticed also, that the lumber truck making a delivery to the farm was from lumber yard "A" run by the young man who had "just stopped to say hello" a few weeks before.

How better can a farm chemical dealer show his sincere interest in a customer than by an occasional call. It not only builds good will, but such a visit gives the dealer a chance to size up the fertilizer situation and other needs. It may lead to orders for other items beyond fertilizer, sprays, insecticides, etc., and it may lead to suggestions for improvements in farm management practices that will get better results.

Dealers who believe in and make farm calls build friendships as well as sales.

## 65% Sales Increase

A 65% increase in sales in one six-month period compared with a similar period in the previous year was recorded recently by one farm supply dealer. He attributed the increase to these factors:

1. Better store arrangement and better displays.
2. Demonstrations.
3. More and better advertising.
4. Farmer meetings.
5. Emphasizing a complete program of merchandising for fertilizer, feeds, seeds, farm equipment, etc.

The interior of the store was rearranged to give more room for floor displays. The front was remodeled to give more window display space and new signs were installed. The entire store front was repainted.

The advertising program was built primarily around classified ads every

day in two local newspapers, plus an occasional display ad. This was supplemented twice a month with advertising publicity including a picture showing the farmer endorsing a good management practice.

Emphasis on a complete merchandising program boosted the sales of allied lines. In other words, fertilizer sales went hand in hand with sales of weed killers, insecticides, applying equipment, sprayers, a good seed line and similar merchandise.



By RAYMOND ROSSON  
County Agent, Washington County, Tenn.

## IN THE NEGATIVE "NO" . . .

No calcium, phosphate, potash or nitrogen, equals no grass or legumes.

No grass or legumes, no beef cattle or milk cows.

No beef cattle or milk cows, no manure or humus.

No manure, humus and nitrogen, phosphate and potash, no corn, small grain.

No corn and small grain, no poultry or pigs.

No eggs, milk, beef, tobacco, cotton, no cash income.

No cash income, no gasoline or oil.

No gasoline or oil, no car, truck or tractor.

No car, truck, or tractor, no food deliveries to town.

No food coming in, no grocery stores.

No grocery stores, no full dinner pails or restaurants.

No full dinner pails, no consumer goods.

No consumer goods, no business establishments.

No business, no tax monies.

No taxes, no schools.

No schools, no government.

No government, no democracy.

No democracy, no church.

No church or Christianity, no future.

WHAT THEN? ISM'S GOT US.

## New Jersey Dealer Perks Up Sales by Finding Out Why Merchandise Doesn't Move

Harold A. Vanaman is not a dealer who sits idly by as customers browse through his store, make a few selections and walk out. He wants his stocks to move, so when he noticed his display of liquid nitrogen staying in one place, he decided to find out why it didn't move.

"Floor space is a very important commodity in our store," says this Millville, N. J., dealer. "And merchandise occupying this space must turn over. So when we noticed our liquid nitrogen sitting in one place, we went directly to the consumer to find out why they didn't use it. And based on the information brought out, we corrected the situation so that we are now enjoying increasing sales of this line."

First, the dealer found out that customers weren't sold on liquid fertilizer. The reason? No one that they knew had used it, and therefore they weren't going to be the first ones to try it out. Mr. Vanaman understood and started working on it.

He used liquid fertilizer on a small grass plot adjacent to the store, then identified it with a large sign that featured the action. Store shoppers stopped to look before entering and noticed the thick green looking plot in contrast to the thin, flat and off-color grass adjacent to it. When they came into the store, they remarked about it.

"Any customer who took that much notice to the small area was naturally interested in fertilizer and wanted more information about it," says Mr. Vanaman. "We pointed out the liquid nitrogen display, told them how to use it and as far as results were concerned, we told them to take a second look outside. We didn't have to sell them on it any further."

In order to answer customers' questions more properly, Mr. Vanaman experimented with his liquid fertilizers himself. He kept a record of the quantities used on the area covered, the mixture made and the date that the spraying took place and how long



NEW JERSEY DEALER—Harold A. Vanaman, left, Millville, N.J., dealer, shows a customer how to use a sprayer for liquid fertilizer.

it took him. Then he made day-by-day notes of the effect of the spraying. Backed up with this information, he has something definite to play up to customers.

"When I talked liquid fertilizer to customers and found them in doubt, I let them read the daily record that I kept," he says. "They noted how much it cost to spray liquid nitrogen over a given area and the time it took. They also read of the results. I told them, that if they didn't enjoy the same results to come back to the store for a refund. We have yet to make a refund!"

Even though liquid fertilizer has been on the market for some time, it hasn't made any noticeable progress in southern New Jersey. The residents here are slow to make changes and before any cash investment, want to know what is in store for them. And that is the situation that Mr. Vanaman has had to combat.

To further the cause of liquid fertilizers, Mr. Vanaman enlarged his store displays even though they didn't move. When customers saw large quantities on hand, they were naturally interested. They reasoned that large quantities of a product are only stocked and displayed when they sell. So more customers started taking a renewed interest in the display and sales began to pick up.

"We plastered all kinds of signs that featured liquid nitrogen and the results of use all over the store," says Mr. Vanaman. "Nobody could enter or leave without reading up on liquid fertilizer by just looking at pictures and picking up a sentence or two on the posters. Even the dry fertilizer customer started asking questions and after giving them a complete run-down of the product, they bought a 'trial' pint or quart. And that's just what we were interested in doing. Getting them started using it."

Mr. Vanaman keeps a record of every customer buying liquid fertilizer. Several days later, he phones the customer and asks for results. This information is then passed along to other store customers and the original customer is usually responsible for bringing it to the attention of others.

Liquid nitrogen is stocked in pint, quart and gallon containers. At present, Mr. Vanaman finds that customers are using it for their lawns, small flower beds and vegetable plots. He feels that these customers will sell it to themselves and after checking results, will buy larger quantities in drum containers for general field use.

Spraying devices are displayed adjacent to the liquid fertilizer stock. Few customers have these and they are shown how they operate.

"I think that there are more people from Missouri in Millville than anywhere else," muses Mr. Vanaman. "Everyone has to be shown, and that's exactly what we're doing. Yet it's paying off. Sales are increasing, customers are beginning to buy larger quantities and before long we expect to be selling liquid nitrogen in drums for general farm use."



# Better Selling

Richer Sales Fields for Dealers



## FARM SERVICE DATA

Extension Station Reports

A Purdue University extension dairyman points out that a good supply of grass is the dairy farmer's best friend. G. A. Williams of the Purdue staff, reports that a milking cow requires at least 100 lb. grass or legumes per day as long as she is in milk. Figuring an average grazing season at about six months each year, a cow will need not less than 10 tons of grass. So it is essential

to have pasture sufficient to meet those needs, Mr. Williams says.

Rotational grazing, says Mr. Williams, can help conserve available pasture and maintain a more constant feed supply. Using temporary fences and moving them at frequent intervals cuts losses from tramping and soilage. It also permits a comeback period for grazed areas.

Forage production on rundown per-

manent pastures can sometimes be doubled or tripled by pasture renovation, according to the Middle West Soil Improvement Committee. Such a program involves reseeding with high yielding, disease-resistant legume grass mixtures, liming where necessary and the use of nitrogen, phosphate and potash fertilizer, the committee says.

★

Corn stalks, straw and other crop residues will build better soil structure if fertilizers are plowed down with them to feed billions of micro-organisms that digest the raw organic matter, reports the Middle West Soil Improvement Committee, in citing a recent statement by Dr. W. P. Martin, head of the soils department of the University of Minnesota.

Dr. Martin explains it this way: The micro-organisms that break down straw and corn stalks need one pound of nitrogen for every 10 lb. carbon used in building the bodies.

In 100 lb. straw there are about 37 lb. carbon and 1/2 lb. nitrogen. About one third of this carbon—or 13 lb.—will be used by the organisms in building their bodies. In addition, the organisms will need 1.3 lb. nitrogen to get the straw properly digested. But since the straw contains only 1/2 lb. nitrogen, the organisms will have to get the balance—nearly 1 lb.—from the soil itself.

For every ton of straw or corn stalks plowed under, about 20 lb. nitrogen will be needed to digest the roughage to the best advantage of the soil. Stalks, roots and stubble in a 100-bu. corn crop will average 4 1/2 to 5 tons. This means that up to 100 lb. nitrogen will be needed to balance out the carbon the corn stalks contain.

If the soil can't provide sufficient nutrients, then the digestion of raw organic matter is slowed down. With less nitrogen available, a smaller amount of carbon will be absorbed by the soil. More of it will be lost in the form of carbon dioxide. The limited nitrogen supply will have to be used over and over again, in the repeated cycle of the growth, death and decay of the bodies of the micro-organisms.

But if the soil is supplied with fertilizer plowed down in the fall with the corn stalks, straw and other residues, the micro-organisms will have plenty of nutrients. The digestion of the raw organic matter can go ahead full speed as long as the soil temperature is high enough to keep the organisms active. Then when crops are planted the following spring, there will be enough nutrients in the soil to feed both the organisms and the growing crops.

★

A spray program for Hudson Valley, N.Y., apples that led to increased yields of high-quality fruit over a five-year period is described in a bulletin just released by the Experiment Station at Geneva.

Eight fungicide treatments were compared in the study and all were equally effective in controlling apple crab in a protective spray schedule. Lead arsenate was used as the basic insecticide in combination with the fungicides to control insect pests.

An all-season program of ferbam fungicides proved safest and resulted in the highest yields and best quality of fruit. The cost per box of fruit was also highest with this program, but the increased production of U.S. No. 1 apples justified the added expense.

The report on the studies is made by Dr. D. H. Palmiter, station plant disease specialist in the Hudson Valley, and Dr. R. M. Smock, pomologist at the College of Agriculture at Ithaca.

Dr. Smock studied particularly the effects of the different spray programs on the keeping qualities of the apples in storage. His tests did not reveal any striking effects of treatment that were not apparent at harvest time.

"It seems evident from local experience and reports from other fruit sections that no fungicide now available is satisfactory for all varieties or all fruit areas," say the scientists in commenting on their studies. "The results reported for the five years of our observations in a Hudson Valley McIntosh orchard should therefore be considered pertinent only for that variety under similar conditions."

# NOW!

## Cash in on

## liquid nitrogen solution boom

### with new BUTLER aluminum TANKS



Welded low-pressure skid tank for on-farm storage. Available in 500, 830 and 1000-gallon capacities. Others (without skids) from 100 to 1000 gallons.

Liquid nitrogen solution fertilizers are sweeping the country! More and more farmers are applying nitrogen this new, fast, low-cost way. This is your chance to get in on the ground floor of a booming market—and profit as demand soars!

Butler now offers two types of special alloy non-corrosive aluminum bulk storage tanks for nitrogen solutions: (1) Bolted vertical 22,000-gallon tanks for non-pressure solutions; (2) Welded horizontal 12,000 and 22,000-gallon bulk storage tanks for low-pressure solutions.

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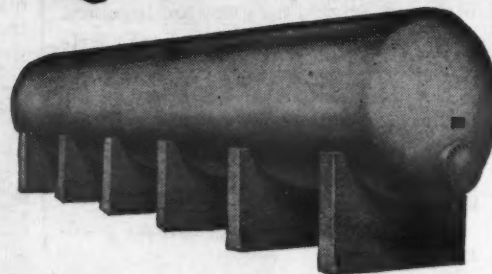
Welded bulk tanks ☐ Bolted bulk tanks ☐ Small horizontal tanks ☐ Skid tanks ☐

Name \_\_\_\_\_

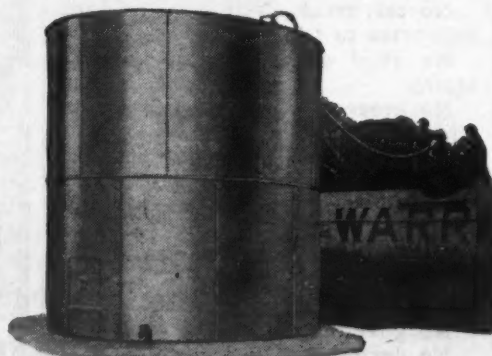
Firm \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_



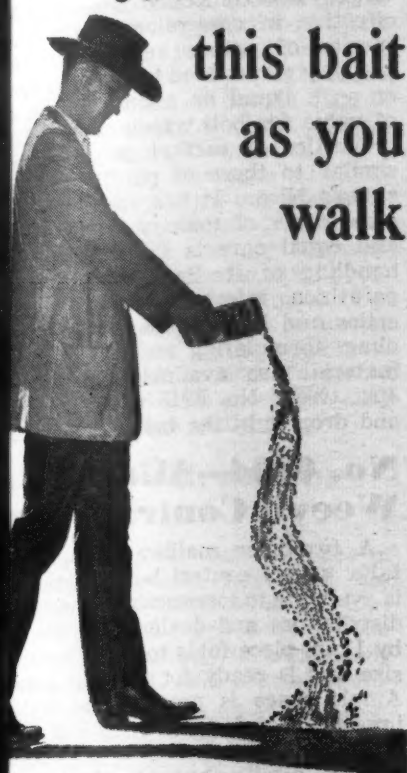
Welded low-pressure tank for bulk storage. Available in 12,000 and 22,000-gallon capacities.



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this bait  
as you  
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and kill  
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areas.

Fast! You can bait several  
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Effective! This attractive-type  
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die.

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excellent control of the lesser  
house fly.

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Doing Business With

Oscar & Pat



It was a warm spring day, and Pat McGillicuddy was working enthusiastically in the demonstration garden behind the farm supply warehouse. It was a 100 by 200 ft. lot facing a back street. When Oscar learned that Pat wanted to buy this lot for the firm, borrowing money from the bank, he threw such a fit that Pat wound up buying it himself and renting it to the firm Oscar and he owned for \$75 a year.

Pat, sensing the sales promotion possibilities of a demonstration garden had the garden plowed and dragged thoroughly to kill some of the quack grass and thistles, and he had also used some soil fumigant. Then he had fertilized it properly, put in most of the early vegetables and potatoes and had staked out some space for planting of tomatoes, sweet corn and field corn.

Some of the land had been fertilized; some was left unfertilized so Pat would have some check strips. Then he planned to paint some signs naming the soil fumigant, the type of fertilizer used, the sprays, etc. Boy, he thought, would this garden promote business, Oscar notwithstanding.

Pat straightened himself slowly, his back aching, as someone said, "Is this where Mr. Schoenfeld works?"

Pat turned to see a dark-eyed man wearing a dusty black derby standing on the sidewalk. A muddy old model car stood at the curb. "Oscar's out at a farm auction this afternoon," he said. "He's my partner in this fertilizer business. He ought to be back in an hour or so. He never stays at those auctions to prow around cellars for cider like some do."

The dark-eyed man made a deprecating gesture with both hands. "A partner? An hour he'll be gone. And I came out 17 miles from the city to waste my time."

"If it's about the fertilizer business," Pat said, "maybe I could serve you."

"No, it's not about fertilizer," the man said. He kept shoving up the stiff front brim of his too big hat. "Has—has your partner bought a suit lately?"

Pat McGillicuddy looked puzzled. "Not that I know of," he said. Then he laughed a little. "Oscar's pretty tight. He watches his pennies. He makes his suits last."

"I know," said the dark-eyed man. "He came to my shop in the city a couple of months ago looking for a suit. I took his measurements and said I would try to get his size." He handed Pat a crinkled calling card. Copy said "Sam Levy, Pawn Shop."

Pat felt like he was eavesdropping. He knew Oscar wouldn't want him to know he had been to a pawn shop looking for a suit. But that was just like frugal Oscar, all right, trying to save every nickel possible.

"So what?" said Mr. Levy gloomily. "I take a chance and come out with five second-hand special suits, and he isn't here. Just his size, too, broad in the shoulder, short neck and a big pot. A doctor died and his family brought the suits in and sold them to me."

"I got a bargain for Mr. Schoenfeld,

a bargain. Two of the pairs of pants got special lining. The doctor used to take in so much silver he had the pockets lined with leather, so the money wouldn't wear a hole. Ha, I should have that much!"

"Well," said Pat, "those leather lined pockets might appeal to Oscar. He would hate to lose any money."

"I'll make him a special price on the five suits," Levy said. "Maybe \$75 if he takes the whole bunch. It's a bargain."

"Why, here's Oscar now," Pat said, as his partner drove up in the firm's light truck.

Levy went over and talked to Oscar. Then, after a short while, Oscar got in Levy's car and they drove away, apparently to Oscar's house to try on the suits.

Patiently Pat went back to work planting the last of the spinach seeds in the demonstration garden. So that's how Oscar managed to pay for his house, buy bonds and build a sizeable savings account. He cut corners wherever he could, even buying pawn shop suits. Although, he, Pat, would never go that far in economizing, it showed what could be done. He'd have to talk to Nora and see if something couldn't be done to save a little more.

Oscar was smart, all right. Take this demonstration lot, for instance. He had provoked Pat into buying it with his own money, instead of using the firm's credit. Pat was sure of that. And come to think of it, Oscar had not gotten out in the garden and hoed and planted at all.

He always had an excuse that book-work was unusually heavy in spring. And so Pat had had to do the work. His back was always so sore that he had missed lots of practice sessions with the music group, and they were getting angry. Even hinted they might look around for another cello player.

Pat was still fussing around his beloved garden when Oscar and Sam Levy drove up. Levy parked the car near the garden while Oscar walked into the farm store.

Levy looked very gloomy. Well," said Pat amiably. "Did you fellows make a deal?"

Levy waved his hand disgustedly. "Deal? He did, but I didn't. He almost skinned me alive."

"What do you mean?" Pat asked. "Surely \$75 for five suits, even if second hand, seems like a good price."

"Huh?" almost shrieked Levy. "75! I'm lucky to go back with \$40 from him!"

"But you don't have to sell, do you?" said Pat.

"Who else would buy suits like that, with a big pot?" asked Levy. "So what—I make costs maybe. Maybe not. I'm rid of them. And then he insists on a 2% discount. I'm waiting for the money now. He didn't want to write a check. He's drawing on this week's salary, he said. Phooey! Last time I come out here."

Pat turned to his cultivating once more, as Oscar came out of the farm store. There was a slight smile on his lips. Now he felt he knew Oscar better than ever. Saving money was his creed, night and day, with no respite. How could he

get Oscar out to work in the garden, to do his share there?

Well, by threatening to hire all demonstration garden work done at prevailing wages from now on and charging it to the firm. Oscar wouldn't stand that. He would pitch in, wreck his back if necessary, blister his hands, just to cut costs and save money. Well, Oscar, he thought, happy hoeing in the hot sun this summer. I know now what surely will make you tick—thanks to Sam Levy.

### Fertilizer Boosts Dairy Farmer Profit, Says Farm Management Expert

MORGANTOWN, W. VA.—The use of lime and fertilizer is reflected in profits of dairy farmers, K. P. Brundage, extension farm management specialist at West Virginia University, pointed out here recently.

"Adequate fertility is one way to get high crop yields that provide low-cost production," he emphasized. "Even the use of credit to get the necessary lime and fertilizer is good business on many farms. Added production will replace purchased feed. Credit is a tool in farming just like a tractor. When a product purchased from a loan will more than pay for its cost, it will improve a farmer's profit. Lime and fertilizer are a good means of increasing farm output and of raising income."

Mr. Brundage cited a study of 60 bank customers in Barre, Vt., which showed how the use of lime and fertilizer was reflected in the profits of dairy farmers. Using Dairy Herd Improvement Assn. records, the lime and fertilizer costs per cow were figured for a year. Farmers with the highest income over feed costs spent an average of \$17.36 per cow for lime and fertilizer. The middle-income group spent \$8.11 per cow, while the low-income group spent \$7.18.

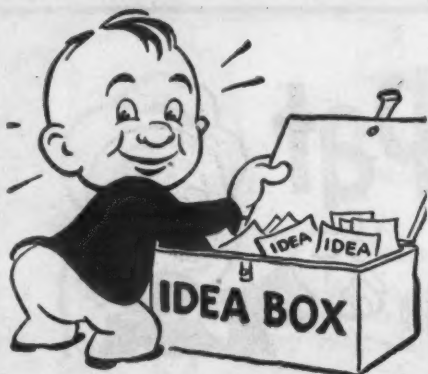
"The report stresses the need for high-producing dairy cows to effectively use the crops grown on the farm," Mr. Brundage explained. "Better dairymen tend to use more lime and fertilizer than the average."

Officials of the bank which cooperated in the study in Vermont commented: "From the survey we have made, it is easy to understand why we rarely turn down an application from any of our customers for a loan to buy lime or fertilizer."

### FARM COST CAMPAIGN

NEW BRUNSWICK, N.J. — In order to help New Jersey dairy farmers weather the present cost-price squeeze, the Agricultural Extension Service of Rutgers University will soon launch an intensive educational campaign on cutting production costs, according to Lindley G. Cook, associate director. Reporting to the board of managers of the State Experiment Station at its quarterly meeting here, Mr. Cook said that several departments of the College of Agriculture would pool their efforts in the campaign.





## What's New...

### In Products, Services, Literature

You will find it simple to obtain additional information about the new products, new services and new literature described in this department. Here's all you have to do: (1) Clip out the entire coupon and return address card in the lower outside corner of this page. (2) Circle the number of the item on which you desire more information. Fill in your name, your company's name and your address. (3) Fold the clip-out over double, with the return address portion on the outside. (4) Fasten the two edges together with a staple, cellophane tape or glue, whichever is handiest. (5) Drop in any mail box. That's all you do. We'll pay the postage. You can, of course, use your own envelope or paste the coupon on the back of a government postcard if you prefer.

#### No. 6250—Antibiotic Fungicide

New literature on Acti-dione, an antibiotic fungicide, has been prepared by its manufacturer, the Upjohn Co. Acti-dione ferrated is said to be an all-purpose product for controlling dollar spot, brown patch, melting-out and fading-out. The literature states that it "has not been found to kill bacteria when applied at recommended fungicidal strengths." Included in the literature are leaflets showing the control possible in the above four major bent grass diseases and the dosage schedule for the product. Information about the Upjohn product, Actispray, a fungicide for the treatment of cherry leaf spot on bearing cherry trees, is also available. Secure the literature by checking No. 6250 on the coupon and mailing it to this newspaper.

#### No. 6236—Soil Cover

A new type vinyl plastic soil cover under the name of Larvacovers, for use in chemical and steam sterilization, is announced by Larvacide Products, Inc. The "life expectancy" of this new type cover is claimed to

be increased significantly by a florist green tint coloring which increases resistance to deterioration from sunlight. Heavy duty, 8-gauge plastic film is used. The cover is manufactured specifically for use in chemical and steam soil treatment. However, they may be used also in irrigation ditch lining, water conservation, erosion prevention and in temporary greenhouse construction. More information is available without charge. Check No. 6236 on the coupon and mail it.

#### No. 5108—Lease Plan

Under a recently inaugurated lease plan, material handling equipment manufactured by Barrett-Cravens Co., may be leased for three years or five years to responsible companies. The plan is not primarily a tax-saving device, but all monthly payments that the customer makes are fully deductible for federal income tax purposes, a company announcement states. There is no option to buy the equipment either during or at the end of the lease. The lease does contain an option for the customer to extend the lease at the end of the three-year or five-year period. Available for lease are: hand

lift trucks, electric lift trucks, pallet lift trucks, fork trucks, industrial tractors, skids, portable elevators and cranes, storage racks and material handling specialties. More information on the plan may be obtained by checking No. 5108 on the coupon and dropping it in the mail.

#### No. 6243—Chemicals Catalog

A revised edition of the Antara Chemicals catalog is now available. Information on chemical composition, physical properties and application is given on established products and new chemicals released in the past few months. The catalog includes a listing of intermediates, as well as detergents, wetting agents, emulsifiers and other chemicals. For a copy of the new catalog, check No. 6243 on the coupon and drop it in the mail.

#### No. 6248—Anhydrous Ammonia Folder

"Mathieson Anhydrous Ammonia" is the title of a four-page folder published by the Olin Mathieson Chemical Corp. which answers a number of questions farmers ask about nitrogen for direct application to the soil: What is anhydrous ammonia? What happens in the soil? When should it be applied? How much should be applied? Copies of the folder are available without charge by checking No. 6248 on the coupon and mailing it to this newspaper.

#### No. 5096—Viscosity Chart

A viscosity conversion chart for quickly translating any viscosity measurement into seven other standard units has been reprinted for distribution by Nopco Chemical Co. The conversion nomograph was designed to minimize problems caused by lack of standardization in measurement methods of various industries. It is intended for rapid estimation rather than extreme accuracy. To obtain a copy of the chart check No. 5096 on the coupon and drop it in the mail.

### Also Available

The following items have appeared in the What's New section of recent issues of CropLife. They are reprinted here to help keep retail dealers on rotational circulation informed of new industry products, literature and services.

#### No. 6245—Insecticide

Methyl parathion, an organic phosphate insecticide recommended for the control of insects and mites on cotton, now is available in commer-

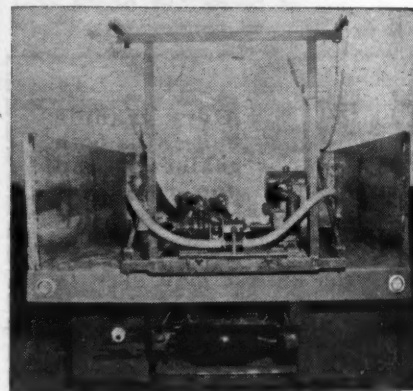
cial quantities from Monsanto Chemical Company's organic chemicals division. The compound is said to be effective in controlling the various species of aphids and mites when properly formulated and applied either as a liquid or a dust. It also is of value for boll weevil control. The properties of methyl parathion are similar to those of parathion, Monsanto's Niran. It has essentially the same order of toxicity as the latter and equal care is necessary in the handling of it. Samples of methyl parathion, information on its properties and instructions for safe handling, formulating and applying the material are available on request. Just check No. 6245 on the coupon and drop it in the mail.

#### No. 6234—Alfalfa Weevil Control

A two-color mailing piece on alfalfa weevil control with heptachlor is available to insecticide formulators, distributors and dealers. The 8½ in. by 11 in. piece folds to handy mailing size and is ready for immediate use. Ample space is provided for dealer imprinting if desired. The folder tells actual case histories of heptachlor use in alfalfa country along with rates and methods of application. For a free supply check No. 6234 on the coupon and mail it.

#### No. 6240—Fertilizer Applicator

Aylward Fertilizer Co. is producing a new, complete analysis liquid fertilizer applicator which has a capacity of 500 gal. The unit is complete, ready for placing on the cus-



tomers' truck for immediate use. The applicator has a stainless steel boom and pump. One round in the field, covering ¼ mile will fertilize two acres. Secure more complete details by checking No. 6240 on the coupon and mailing it to this newspaper.

#### No. 6242—Weed Killer

The Pacific Coast Borax Co.'s agricultural sales division announces the introduction of DB-Granular, a weed killer designed for agricultural weed problems including deep-rooted noxious perennial weeds. The product is a complex of disodium tetraborate and 2,4-dichlorophenoxyacetic acid. This new herbicide is applied in dry form just as it comes from 50 lb. multiwall paper sacks. DB-Granular for agricultural use is a companion product to the company's new Urea-bor introduced recently for industrial weed problems. To secure more complete details check No. 6242 on the coupon and mail it.

#### No. 6241—Soil Fumigant

Nemagon, a new soil fumigant for control of nematodes, which is said to have great stability in the soil, is now available for limited commercial use, it was announced by officials of the Agricultural Chemicals Division of Shell Chemical Corp. The product has been tested on cotton.

Send me information on the items marked:

- |   |  |
|---|--|
| <input type="checkbox"/> No. 5096—Viscosity Chart | <input type="checkbox"/> No. 6241—Fumigant         |
| <input type="checkbox"/> No. 5108—Lease Plan      | <input type="checkbox"/> No. 6242—Weed Killer      |
| <input type="checkbox"/> No. 6233—Herbicide       | <input type="checkbox"/> No. 6243—Catalog          |
| <input type="checkbox"/> No. 6234—Weevil Control  | <input type="checkbox"/> No. 6245—Insecticide      |
| <input type="checkbox"/> No. 6236—Soil Cover      | <input type="checkbox"/> No. 6246—Transfer Pump    |
| <input type="checkbox"/> No. 6238—Lawn Booklet    | <input type="checkbox"/> No. 6247—Lawn Fertilizer  |
| <input type="checkbox"/> No. 6239—Fly Killer      | <input type="checkbox"/> No. 6248—Anhydrous Folder |
| <input type="checkbox"/> No. 6240—Applicator      | <input type="checkbox"/> No. 6250—Fungicide        |

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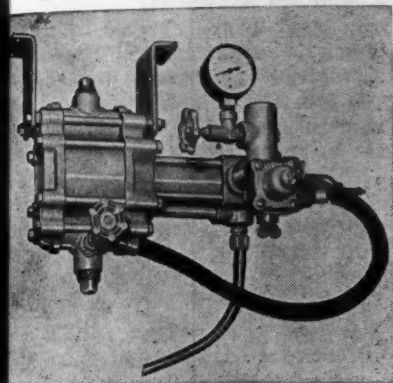
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apes, citrus, and other tree crops  
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chemical so that applications can be  
ade around the roots of the living  
ant, it is claimed. With established  
ees, applications of five to 10 gal.  
er acre have been used for control  
a wide variety of nematodes to a  
pth of 4-6 ft. Nemagon (1, 2-di  
ome, 3-chloropropane) is currently  
eing manufactured on pilot plant  
ale. Both liquid and dry formula  
ons are being marketed. The prod  
t will be available for limited sales  
his season on such crops as citrus,  
otton, and grapes. Nation-wide mar  
eting is expected in 1956. To secure  
ore complete details check No. 6241  
n the coupon and mail it.

## No. 6246—Transfer Pump

A new pump for fast transfer of  
nhydrous ammonia has been an  
nounced by the John Blue Co. The  
ump starts and stops with a twist  
f a valve, according to a company  
nouncement. It uses a small quan



ity of ammonia vapor to drive the  
transfer pump, thereby reducing loss.  
Flow rates of 20 gal. per minute or  
more may be obtained with a loss of  
three-tenths of 1%, it is claimed.  
This means that a 100-gal. tank may  
be filled to 80% in 5 min. The pump  
is easily installed and weighs 27 lb.  
The firm's announcement states that  
the saving in ammonia alone will pay  
for the compressor within a short  
time and that it has other features  
such as low initial investment, elimi  
nation of the defoliation of crops and  
irritation to bystanders. Secure more  
details by checking No. 6246 on the  
coupon and mailing it to Croplife.

## No. 6238—Lawn Booklet

A new booklet entitled, "How to  
Kill Lawn Insects with Dieldrin," has  
been prepared by the Shell Chemical  
Corp. Illustrated in four colors, the  
2-page booklet contains a wide va  
riety of information about turf  
killing bugs and how to treat them  
with various dieldrin formulations.  
Protection of ornamentals is covered  
in the new booklet and there is a  
special section on application of diel  
drin for control of household insects.  
A copy may be obtained by checking  
No. 6238 on the coupon and dropping  
it in the mail.

## No. 6239—Fly Killer

Ortho fly killer dry bait is the  
name of a new product that is said  
to kill both resistant and non-  
resistant house flies economically and  
safely, according to its manufacturer,  
California Spray-Chemical Corp.,  
which has brought it out as a com  
panion product to its liquid bait,  
Ortho fly killer M. The dry bait  
product utilizes the particle size basis  
in its malathion formulation. A Cal  
ifornia spokesman said: "A study of  
fly feeding habits revealed that the  
insects like to pick up particles of a  
size relative to the size of a football  
man. They can't eat a particle of  
this size, any more than a man could

swallow a football. A single particle,  
therefore, may serve as a final meal  
for a number of flies." No mixing is  
necessary. Available in 1-lb., 5-lb. and  
25-lb. sizes, the product is claimed to  
resist caking. More complete details  
are available. Check No. 6239 on the  
coupon, clip and mail it to this news  
paper.

## No. 6233—Herbicide

Baron, a nonselective herbicide, is  
now available for industrial use, the  
Dow Chemical Co. announces. The  
new product is a liquid which emulsi  
fies readily in water. Active material  
in Baron is 2-(2,4,5-trichlorophenoxy)  
ethyl 2,2-dichloropropionate. For  
convenience this chemical has been  
given the coined common name erbon.  
It is said to embody a new chemical  
characteristic as the basis for its ef  
fectiveness. Baron contains 4 lb. of  
technical erbon per gallon. Baron may  
be sprayed on leaves, which take it  
up directly; or it may be sprayed on  
the soil, from which it is taken up  
by roots. Its translocation from leaves  
is relatively independent of rainfall  
moisture. It is claimed that when it  
is applied to the soil it acts as a resi  
dual sterilant, lasting for approxi  
mately a season, its effective persis  
tence depending upon various fac  
tors. Secure more complete details  
by merely checking No. 6233 and  
mailing the coupon.

## No. 6247—Lawn Fertilizer

Plantrons, a new high-analysis, solu  
ble fertilizer in bead form for home  
lawns and gardens is being test mar  
keted in the San Diego, Kansas City,  
Cleveland, Columbus, and Springfield,  
Mass., areas by Forward House, Inc.,  
a division of Olin Mathieson Chemical  
Corp. Patterned after the high anal  
ysis pelletized commercial fertilizers  
produced by Olin Mathieson, Plan  
trons has a basic formula of 12%  
nitrogen, 24% phosphorus and 12%  
potassium. It also contains 0.1% each  
of iron, copper and zinc, plus chelat  
ing agents to solubilize these ele  
ments and make them immediately  
available to plants. The product is  
completely soluble and thus can be  
applied either dry or in solution. It  
has a green color and mint odor.  
The product is packaged in 4-oz., 1½-  
lb., and 5-lb. cans and 10-lb. and 25-lb.  
cylindrical fiber containers. To se  
cure more complete details check No.  
6247 on the coupon and mail it to  
Croplife.

## County Conservation Plans For Wet Land Announced

BOSTON—Conservation plans for  
the farmer who has a wet tract of  
land have been announced by the  
Middlesex County Soil Conservation  
District, assisted by the U.S. Depart  
ment of Agriculture.

A farmer may have several altern  
ative-safe uses for his land that a  
conservation farm plan can be quite  
easily adapted to the needs of his  
farm enterprise and help on the prob  
lems can be had by becoming cooper  
ators with the agencies.

The land can be left as a low grade  
pasture or for wildlife pasture. It  
can be developed for wildlife by  
periodic flooding and level ditching.

Drainage may be improved so that  
excellent quality hay or pasture can  
be grown or if truck crops are pre  
ferred. The land may be plowed, har  
rowed and reseeded to a wet land  
mixture for improved hayland or pas  
ture.

A farm pond in the area may be  
constructed by damming and flooding  
or by excavation or a combination of  
both.

## 114 Schools to Participate in GLF Demonstration Program

ITHACA, N.Y.—Vocational agri  
culture departments of 114 schools in  
New York are participating in the  
1955 crop demonstration program  
sponsored by the Cooperative Grange  
League Federation Exchange, Inc.

This is the third year that New  
York State FFA chapters have taken  
part in these crop demonstration  
projects, and there has been a 25%  
increase over last year in the num  
ber of plans submitted. Agronomists  
reviewing the plans stated that the  
1955 plans show more thought and  
more stress on use of demonstration  
in classrooms and the community.  
Fifty-nine demonstrations will fea  
ture corn, while demonstrations with  
oats and pastures are the next most  
numerous type of project.

In the 1955 program, all types  
of recommended farm practices  
will be demonstrated. The rate of  
fertilization and crop varieties  
seems to be the most numerous.  
Others include plowing down ni  
trogen, plant population, weed kil  
lers, control of insects in hay and  
pastures, use of hormones on to  
matoes, effect of lime and irri  
gation.

The purpose of the FFA crop dem  
onstration program is to encourage  
and recognize outstanding FFA chap  
ter achievement in planning, develop  
ing, conducting and making effec  
tive educational use of a crop dem  
onstration which is designed to show  
by contrast the value of using the  
latest approved and recommended

## Better Selling Richer Sales Fields for Dealers

practices in growing a specific crop.

Local G.L.F. service agencies will  
provide up to \$30 worth of mate  
rials (seed, fertilizer, lime, weed kil  
lers, etc.). Although it is not de  
signed as a contest, the top 10%  
of the chapters entering, establishing  
an acceptable demonstration and fil  
ing a final report will each receive  
\$50 and an engraved plaque from  
the Cooperative G.L.F. Exchange.  
The second 10% will each get \$25.  
All chapters who complete their proj  
ects will receive participation cer  
tificates.

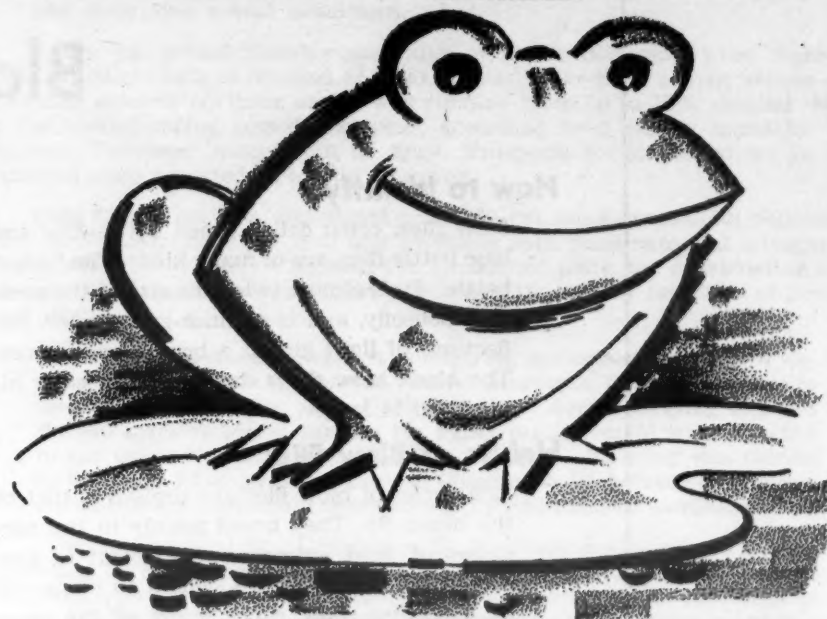
C. N. Silcox, G.L.F. general man  
ager states, "This program provides  
an opportunity for pupils to learn  
first hand the responsibilities and ad  
vantages of working together and  
will give them a chance to observe  
for themselves the results of good  
approved agricultural practices. As a  
result of this program, I feel that  
all future farmers will benefit great  
ly from this first hand experience.  
It is very gratifying to G.L.F. that  
over one third of the FFA chapters  
in the state are taking part in this  
demonstration project."

The Crop Demonstration Commit  
tee includes: Harold L. Noakes, Bu  
reau of Agricultural Education, Al  
bany, chairman; R. C. S. Sutliff,  
chief, Bureau of Agricultural Educa  
tion, Albany; William R. Kunsela,  
Sam Aldrich, William L. Garman  
and Carl C. Lowe of Cornell; E. B.  
Mott of Richmondville, N.Y., and  
Paul Taber, Harlo P. Beals and  
George Serviss of G.L.F.

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market area.

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the same territory... if you  
are tired of seeing repeat  
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in your pool. It will pay you  
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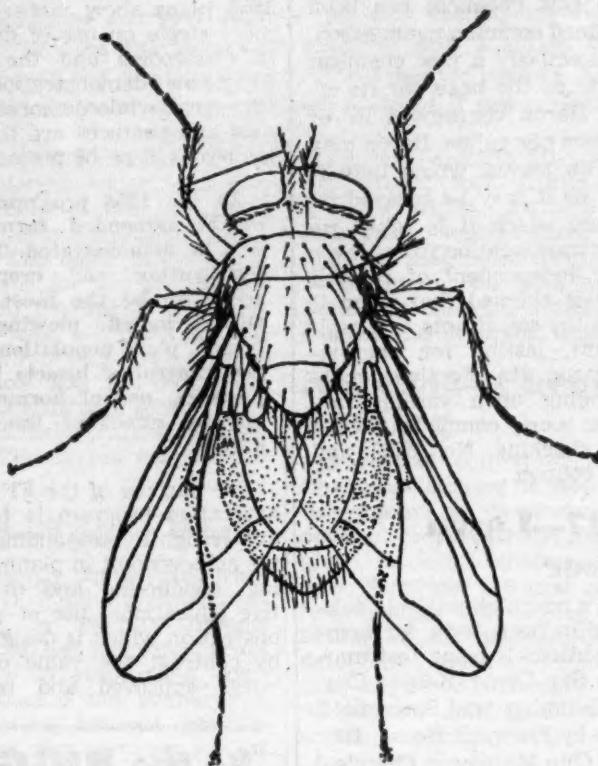
**PRIVATE BRANDS, INC.**

300 S. THIRD—DEPT. CL-1—KANSAS CITY, KANSAS



# BUG OF THE WEEK

Mr. Dealer Cut out this page for your bulletin board



## Blow Fly

### How to Identify

Blow flies, often called green bottle flies and blue bottle flies, are of many kinds. The "green bottle" fly is almost twice the size of the common housefly, and is a bluish-green color. Reflections of light give it a bronze appearance. The black blow fly is dark greenish color all over and is larger.

### Habits of Blow Flies

Life cycles of blow flies are similar to that of the house fly. They breed mainly in the carcasses of dead animals and in meat in garbage. Although they are seldom so numerous as houseflies, they carry many of the same disease-producing organisms. The larvae of blow flies also develop in wounds or natural openings of the body. Some species, true parasites, develop in the tissues of living animals. The flies spend the winter in the larval or pupal stage in soil or in manure. After appearance in the early spring, the pests continue breeding throughout the summer unless this activity is checked by dry weather. A generation is completed in about 3 weeks, from egg to egg.

### Damage Done by Blow Flies

These pests cause considerable losses to cattle, horses, hogs, sheep and goats. According to USDA figures, blow flies cause an estimated annual loss to these animals of more than \$15 million. Chickens, too, can be affected by the fly, though indirectly. At times, fowl become ill and die from ingesting blow fly maggots that have developed in contaminated meat. The blow fly is also suspected of being a carrier of a number of human disease organisms.

### Control of Blow Fly

An obvious means of control of these flies lies in sanitation, or removal of situations conducive to egg-laying and protection from cold weather. A number of insecticidal chemicals are effective in control. DDT, lindane, methoxychlor, chlordane, toxaphene and dieldrin have all proved their effectiveness under different conditions. Fly resistance to some of these toxicants is a real problem, but by alternating use of different insecticides, much of this handicap may be averted.

Drawing of blow fly furnished Croplife through courtesy of U.S. Department of Agriculture.

Previous "Bug of the Week" features are being reprinted in attractive 24-page booklet, priced at 25¢ single copies; reduced rates in quantities. Write Croplife Reprint Dept., Box 67, Minneapolis 1, Minn.

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# THE TROUBLESOME 2%

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## They're No Credit to Anyone

By AL. P. NELSON  
Croplife Special Writer

One encouraging feature I have observed in visiting several hundred dealers during the past year is that a large percentage of them are more interested in good credit policies than ever before.

One reason for this interest is that the collection of money is more important than for some years past, because farmers have slightly less annual income and so naturally a larger percentage of them pay bills more slowly than they did in recent years. If ever a dealer needed to watch his delinquent account list is now. Don't let it get out of hand.

Quite a few dealers have daily delinquent account lists on their desks. This list is given them by the bookkeeper on the first of the month, and some dealers check that list every day. They make notes on names which need contacting by letter, phone or personal call. And the fact that the dealers keep such lists on their desks shows that they do not intend to forget collections.

At this time, when the dealer is asked to give credit to a new customer, he will be wise to ask himself two questions:

1. Can he pay?
2. Will he pay?

If you do not have the information to answer these two questions satisfactorily, then you are walking on thin ice if you grant credit. You are gambling, and dealers know that you cannot gamble too consistently in business and come up in the profit columns. To succeed in the farm supply business you must have a certain number of known facts to back up your operations.

With old customers, those who have done business with you for a year or more, some on a cash, some on a credit basis, you know the answers to "Can they pay?" and "Will they pay?" You know, as many large store operators know, that about 98% of all customers pay their bills on time. About 2% do not. And, oh, the trouble those 2% can cause you. As an example, if all customers bought the same amounts annually, 98% of a \$300,000 annual volume would amount to \$6,000. Suppose you lost \$6,000 yearly. Could you stand it—plus the cost of trying to collect that money?

So the 2% who do not pay bills promptly—some never—are worth weeding out of your customer clientele.

One credit authority says that credit is the "time given for the payment of goods sold on trust." I think that definition is worth framing. Does your credit customer know what credit means?

How would your credit customer feel if he made an appointment with you or someone else to meet him at a certain time on a certain street corner, and you didn't show up? He would be angry and hurt, wouldn't he? And you couldn't blame him for that, could you?

That man would probably be saying to himself, "The least he could have done was to send word to me that he couldn't meet me. Anything, instead of breaking his word, or making me stand there, thinking he would come."

If you have to write a collection letter to a delinquent, use that "waiting on the corner" technique. Maybe he wouldn't make a friend or foe wait overtime for an appointment—well, shouldn't he notify or consult

with his dealer creditor when he can't pay on time, as he promised? "Can he pay? Will he pay?"

### Partly Answered

If you ask your credit applicant to fill out a credit application, he, himself, will partly answer those questions. The references he gives, too, when you contact them, will give you additional information. So will his banker. The first thing any new resident does when he moves into a locality is to open an account in some bank.

If he hasn't got an account, or if he misuses an account, the banker will know it and inform you, if you ask him.

Finally, do not forget to contact your local credit bureau. As a dealer you can join such a bureau and enjoy the privileges of it for an annual fee ranging from \$15 to \$50. It is well worth the cost. Credit bureaus have lengthy credit reports on all residents, and they'll usually get credit reports on new residents for you.

Remember, you are only trying to protect yourself against that shady 2%—the people who do not pay their bills when due or who never pay at all. The other 98% of your customers—some cash, some credit—pay on time. If they want extended credit they'll ask you for it. And you know whether they can and will pay, for you have past performance to go on. And such customers don't mind when you ask for credit references, if needed. But the 2% will howl to high heaven when you ask for credit references. They'll act insulted, hurt and they'll stew around and infer that they can get credit elsewhere if you don't give it to them. And no investigations, either.

Let them bluff. Let them rave. They are just stalling, trying to cover up their "poor" credit rating. They're hoping you won't find out how bad a credit risk they are. They took you for an easy mark.

But don't let them fool you—not that 2% who cause all the trouble. Make them show cause why they should have credit or make them pay cash! It's cheaper for you in the long run—to be careful.

### County Honored for Green Pastures Program

BURLINGTON, VT. — Orleans County, Vermont, has been honored as the Vermont county which made an outstanding contribution to the 1954 Green Pastures program. The award was presented by the National Fertilizer Assn. to Roger Whitcomb, Orleans County extension agricultural agent, and Robert Kilborn, Derby farmer who won the 1954 New England Green Pastures contest. Presentation was made by William P. Mitchell, manager of the Burlington Rendering Branch of Consolidated Rendering Co., Boston, at Town and Country Days on the University of Vermont Campus.

### North Carolina Shipments

RALEIGH—March fertilizer shipments in North Carolina totaled 514,314 tons, compared with shipments of 470,825 tons in March, 1954, according to the North Carolina Department of Agriculture. Shipments during July-March of the 1954-55 fiscal year totaled 1,089,967 tons, compared with 1,120,773 tons during a corresponding period a year earlier.

## What's Been Happening?

This column, a review of news reported in Croplife in recent weeks, is designed to keep retail dealers on rotational circulation up to date on industry happenings.

Ample supplies of pesticides for the 1955 season were seen in the USDA's report on the "Pesticide Situation." Inventories of both technical materials and the chemical content of formulations were down about 9% at the end of September, compared to 1953. Stocks of technical grades of pesticides in hands of manufacturers and mixers were down about 16%.

A survey by the National Fertilizer Association indicated that the Mountain and Pacific Northwest states were enjoying fertilizer sales about 3% over those of last year. Tonnage was expected to be up by as much as 5% for the area when the fertilizer year ends. . . . Vorhes Chemical Corp., Charles City, Iowa, announced that construction has begun on its \$200,000 dry mixing fertilizer plant.

An increase of 100% in use of pesticides in the Carolinas and Virginia is possible, Dr. Clyde F. Smith, North Carolina State College, said at the opening meeting of the Carolinas-Virginia Pesticide Formulators Assn. at Raleigh. The two-day meeting marked the organization of the new industry group.

The Federal Food and Drug Administration took steps to eliminate duplication of fees charged to applicants for tolerance determinations on pesticides. Where supporting data for a product is similar for use in several crops, the original fee will cover. . . . American Potash Institute, Washington, D.C., announced that potash deliveries for 1954 were up 9% over 1953. A total of 1,834,810 tons K<sub>2</sub>O content was delivered last year, amounting to 171,658 tons over the previous year's total.

Both output and export of pesticides were up in 1954, the USDA announced. BHC, DDT, 2,4-D were up in production, but 2,4,5-T declined. . . . The USDA also reported that farmers spent approximately \$241 million for pest control, mostly for control of insects and plant diseases.

Spencer Chemical Co. announced a \$1.5 million expansion in its nitric acid and ammoniating facilities at Vicksburg, Miss. The expansion will be completed in the spring of 1956. . . . Stauffer Chemical Co. announced that the new million dollar addition to its fertilizer plant at Vernon, Cal. will be turning out new products about the end of July, 1955.

Sohio Chemical Co., newly-formed subsidiary, will market the products of the \$17 million petrochemical plant of the Standard Oil Co. now under construction at Lima, Ohio. The plant is expected to be completed about Jan. 1. . . . Survival of boll weevil was reported to be higher than average in Louisiana, giving rise to the possibility of infestation this summer. However, weather during June and July will determine actual conditions.

Prices on paradichlorobenzene and monochlorobenzene were reduced April 21, due to lack of demand at what is usually the peak buying season. . . . Fertilizer sales in northern states was running from 10 to 15% behind those of the corresponding period last year, according to a survey made by the National Fertilizer Association in April. Prospects for improvement in the situation were reported as bright, however.

Brea Chemicals, Inc., completed a 210,000 gal. aqua ammonium phosphate plant at Fresno, Calif. The firm now produces both phosphate and nitrogen in solution form. . . . Curry Chemical Co. announced plans for construction of a 40-ton-a-day liquid mixed fertilizer plant near its present facilities at Scottsbluff, Neb.

USDA announced that it is studying materials that inhibit development of insects as possible control measures. Piperonyl butoxide showed promise in this area, USDA said. . . . Aerial spraying of some 800,000 acres in Massachusetts for gypsy moth control was expected to get under way around April 25. . . . Aron L. Mehring was named by USDA to head fertilizer work of Commodity Stabilization Services. He will direct continuing study on supply and demand conditions.

Davison Chemical Co., Division of W. R. Grace & Co., named F. Clayton Nicholson as vice president of the Division in charge of chemical operations. Mr. Nicholson succeeded W. B. McCloskey who became vice president of the parent company. . . . Olin Mathieson Chemical Corp. named managers for Agricultural Chemicals Division: John H. Nason, general manager of the eastern fertilizer division, at Baltimore; Joseph Mullen, Jr., general manager of western fertilizer division, Little Rock, Ark.

Corn borer damage in 1954 amounted to about 192 million bushels, worth more than \$261 million, according to the U. S. Department of Agriculture.

The first annual meeting of the National Nitrogen Solutions Dealers Assn. was held in Omaha March 14-15. Wayne Johnson, Shenandoah, Iowa, was named president. . . . Phillips Chemical Co. acquired quarter interest in Farmers Corporation, a new firm established March 12 by the National Farmers Union and Kee-McGee Oil Industries.

E. I. duPont de Nemours & Co., Inc., announced operation of its East Chicago (Ind.) plant for production of sulfuric acid. The plant, capable of producing more than a trainload of sulfuric acid a week, was said to be the largest single unit of its kind in the world. . . . Shea Chemical Corp., Baltimore, announced plans for a \$5 million expansion program that will double the firm's phosphate-producing capacity.

Cotton meeting at Phoenix, Ariz., March 8-9 brought out fact that systemic insecticides show "great promise" in pest control in cotton, but much more research is needed before full use comes. . . . U.S. Department of Agriculture pointed out that cost of fertilizer materials has increased less than any other commodity the farmer buys. Hired labor was listed as having increased over 300%, while fertilizer has gone up only 52%, compared to cost of 1935-39.



# The Farm Chemicals Library Reader Service Department CROPLIFE

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Firman E. Bear

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A complete study of soils; physical properties, soil organisms, organic matter, relation of water, control of water, tillage, erosion, acidity and its control by liming, management of alkali soils, nitrogen and its importance to the farmer, production, conservation and utilization of farm manures, production and utilization of green manure crops; fertilizer materials and their effects on soils; crop rotations; fertilization and long-term maintenance of productivity of mineral soils. Published 1941. 424 pages, illustrated ..... \$6.00

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Malcolm H. McVickar

Dr. McVickar is chief agronomist of the National Fertilizer Association. The book deals specifically with commercial fertilizer, how it is produced and how to use it. It is non-technical. It includes chapters on how to measure fertility of soils, secondary and trade-element plant foods. 208 pages, 106 illustrations, cloth bound ..... \$3.00

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A textbook-manual presenting a modern view of the rapidly developing field of chemical weed control. Reports in detail the research on which most modern herbicide usage is based. Weeds, their reproduction, prevention, biological control, chemicals in weed control. Herbicides, foliage contact applications, hormone-like substances, root applications, evaluations of combinations of chemical applications. Weeds of grasslands and turf. Special weed problems, cropped and uncropped areas. Published 1952. 503 pages, 155 illustrations ..... \$8.00

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Harold H. Shepard, Entomologist, U.S. Department of Agriculture, formerly Associate Professor of Insect Toxicology, Cornell University.

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## GRAIN SANITATION

(Continued from page 1)

payments, or the farmers will be billed by the government for the difference between the loan and the sale price of the wheat.

Not only will wheat be affected by the FDA standards but also it is important for the farm community to note that USDA is inserting in its 1955 crop loan programs thus far issued the same provision concerning the FDA sanitation tolerances.

The burden is clearly being passed on to the farm level where substantial quantities of the wheat loans are taken.

It is expected that in its educational efforts at the farm and country elevator levels USDA will give its general approval of a non-toxic material composed of pyrethrum, fortified and boosted as to effectiveness with

piperonyl butoxide.

The combination of these materials is highly effective as a protectant against weevil from the combine into the farm storage bin. This material has been available as a dust or powder.

It is indicated here that a water-soluble spray may be given the blessing of USDA in its education efforts.

Trade sources here say that the water-soluble spray can be applied by available farm implements at a cost of approximately 2¢ bu. As much as 5% of the wheat crop may be infested with weevil during storage—thereby discounting the stored wheat by as much as \$1 bu. on the basis of current wheat prices.

It may be seen that a broad avenue of dealer business may be available from farm protection of

the wheat crop to say nothing of similar business opportunities in the other grains—oats and barley.

The equation to the farmer seems a most simple one—for 2¢ bu. his grain can be protected against weevil damage, or he may face a discount of as much as \$1 bu. on loan default grain delivered to the government, or even in sales in the free market. It looks like a 98¢ bargain per bushel to the wheat farmer.

## FARMING WITH THERMOMETER

BIG SPRING, TEXAS—Most irrigating farmers in West Texas have added a new gadget to their farming equipment. It is a soil thermometer that tells them when to plant cotton. Regardless of the weather, many of them now wait until the soil temperature is 70° before planting. Dry-land farmers have no need of a thermometer. They plant when a rain comes, which may be anywhere from May 1 to the last of June.



Richard G. Powell

### Mississippi River Chemical Co. Names Richard G. Powell

ST. LOUIS—The appointment of Richard G. (Dick) Powell as technical service representative has been announced by John L. Sanders, sales manager, Mississippi River Chemical Co., a division of Mississippi River Steel Corp., St. Louis.

Mr. Powell will assist Bradley and Baker, distributor of the agricultural products produced by the Mississippi River Chemical Co., in the proper use of the products furnished to fertilizer manufacturers.

Formerly associated with American Cyanamid Co., Mr. Powell has spent the last 3½ years with Spencer Chemical Co., doing technical service work in the nitrogen field. This involved the handling of ammoniating solutions and fertilizer production problems.

Mr. Powell, who served in the navy during World War II, attended Western Michigan College and Iowa State College. He was graduated from Iowa State with a B.S. degree in chemical engineering.

### Dr. Alvan H. Tenney Leads ACS Section

NEW YORK—Dr. Alvan H. Tenney, market research manager of Carbide and Carbon Chemicals Co., was elected chairman of the New York section of the American Chemical Society effective July 1. He succeeds Dr. Warren Sperry of Columbia University and New York State Psychiatric Institute.

Dr. Henry B. Hass, president of Sugar Research Foundation, Inc., is now chairman-elect. A. B. Kemper, head of the Manhattan College chemistry department was reelected secretary and Fisher Gaffin, J. T. Baker Chemical Co., continues as treasurer.

### Mites in Kansas

HUTCHINSON—A combination of seasonably warm weather and brown mites has dealt the Central Kansas wheat crop a vicious blow the past two weeks with the result that farmers and grainmen expect yields to be cut more than in half. Two weeks ago the fields were a deep green and the outlook was excellent, provided there was some rain near normal moisture.

But the past two weeks stiff south winds and temperatures in the upper 70's plus a severe infestation of brown wheat mites have turned fields a dead blue, drouth color or pale green with brown splotches.

### SOIL STEWARDSHIP WEEK

WASHINGTON—Ezra Taft Benson, secretary of agriculture, has designated the week beginning May 15 as "Soil Stewardship Week."

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## WORLD REPORT

### Industry News from Everywhere

By **GEORGE E. SWARBRECK**  
Croplife Canadian and Overseas Editor

The phenomenal growth of the agricultural chemical industry, particularly in the past decade, has resulted in some respects from its own efforts to show a need and then produce a chemical appropriate to that need. A good example is the herbicide section of the trade.

In an industry so successful, competition is bound to arise. From London comes a report that the British Electrical Research Association wants to get into the act. Research men on the association staff claim that it is possible to kill weeds by the use of powerful electric shocks from a portable probe similar in shape to a walking stick.

The heat generated by the passage of the current destroys the whole root structure and the weed cannot grow again. Experiments, the report states, are now being carried out to make sure the apparatus is completely safe as well as efficient before commercial exploitation is considered.

The association also states that the destruction of weeds with complex and interwoven roots presents no real problem. All that has to be done is to insure that the electric shocks actually pass through and destroy the roots.

#### Grain Pests

The British association is also experimenting with the use of high frequency electric fields to destroy bio-

logical pests in foodstuffs. Research has shown that the control of weevils in stored grain is possible by dielectric treatment.

If an electric current is passed through infested grain, the body fluids of the weevils will form a better conductor than the grain itself; they can, therefore, be electrocuted although the grain they are infesting does not heat above 40° C. It is estimated that 1,400 lb. grain an hour can be treated by the use of a 25 kilowatt dielectric heater at a cost of 51¢.

#### Mexican Fertilizer Output

The government agency, Nacional Financiera, reports that the consumption of fertilizers in Mexico has jumped 397% in the five years 1950-54.

The domestic production of both chemical and organic fertilizers has risen from 28,682 metric tons in 1950 to 161,148 tons in 1954, equal to 462%. At the same time, imports have also increased — from 15,474 tons to 58,097 tons.

In the case of chemical fertilizers the report shows that production was 18,462 tons in 1950, 127,200 tons in 1953 and reducing to 120,329 tons last year.

This rising trend shows no sign of abatement because some U.S. firms are reported to be interested in making arrangements with the Mexican authorities to establish factories.

#### Floods Do Good

Floods are the bane of farmers. Overspilling rivers can ruin the work of years. That is what the market gardeners of Canada's Holland Marsh located near Toronto, thought when Hurricane Hazel devastated their productive land last fall.

The water was cleared by heavy pumps during the winter and the Ontario Agricultural College has been making tests. These tests show that salt, which stunts plant growth and reduces yields, was washed away by the flood waters. An official, Ronald Gaston, says that the salt is a residue from fertilizer.

The flood waters also killed root fly larvae in the area, reducing the pest's population by about 60%. This insect has been blamed for destroying much of the carrot crop grown on the marsh.

#### Greek Duties

The Greek government has issued a regulation limiting the exemption from import duty of liquid ammonia used in the production of fertilizers. The exemption is now limited to liquid ammonia for industrial purposes containing up to 30% of ammonia gas in containers of over 50 kilograms.

#### Use of Applicators

The Canadian government's experimental farm at Brandon, Man., has reported increased interest by farmers in broadcast fertilizer applicators. The report covers those machines designed to spread fertilizer at varying rates, not those operated with seedling machines.

The officials state that this method of application is satisfactory for the application of nitrogenous fertilizers such as ammonium sulfate to pasture or haylands, or in applying supplementary nitrogen to overcome the deficiency induced by decomposing straw.

On the other hand, this type of applicator is not satisfactory for applying phosphatic fertilizers such as 11-48-0 to cereal crops. Phosphorus is rapidly made available in the soil and to obtain the most profitable returns from its use, it is necessary to place it as close to the seed as possible. This, the station states, can be most effectively accomplished with the standard fertilizer attachment on the seeding machine.

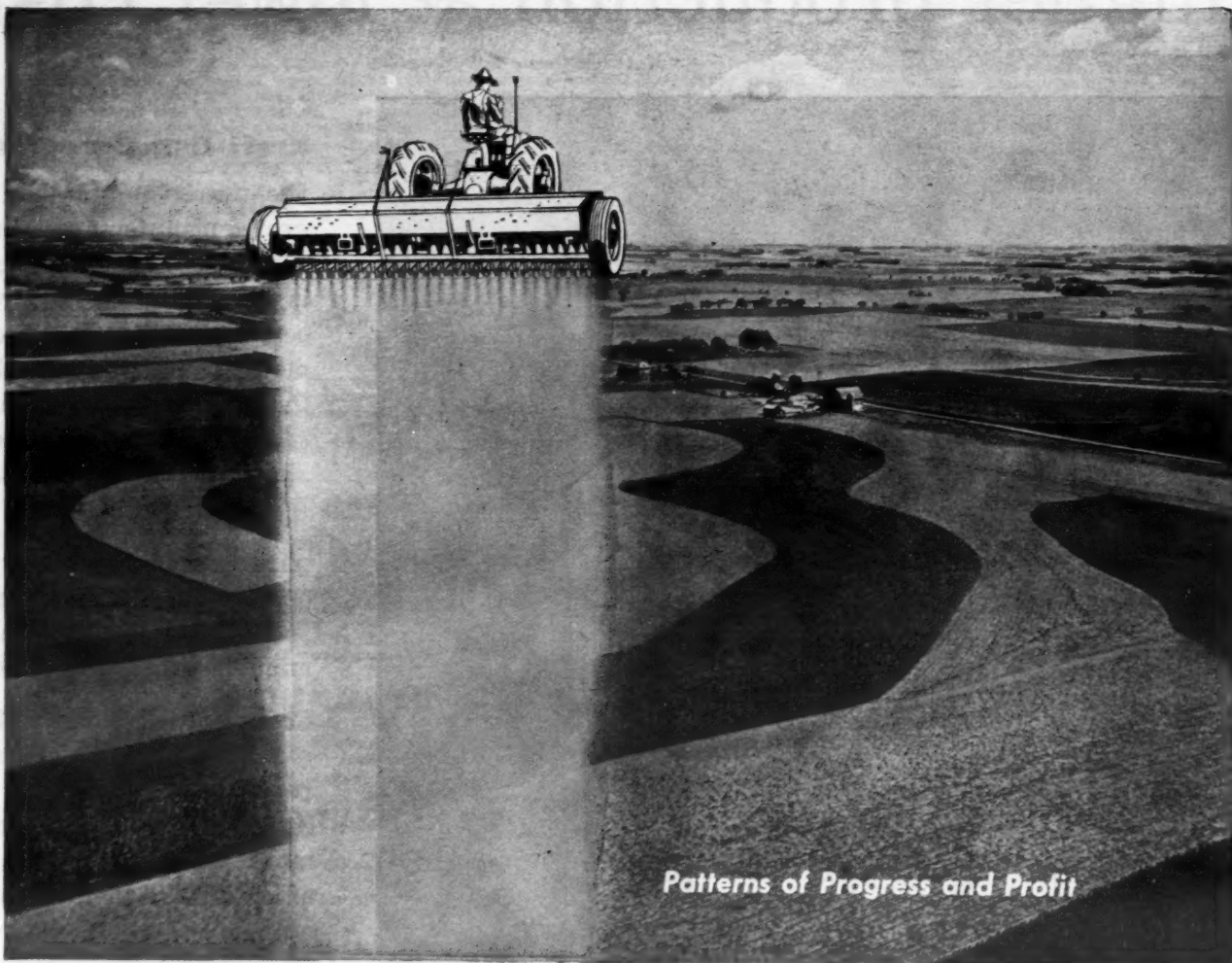
#### Rain Brings Weeds

Heavy rainfall between April 1 and May 3 in Western Canada has brought on a heavy growth of weeds on land already prepared to receive the spring grain crops. Farmers are faced with the alternative of recultivating or embarking on a major spraying program.

#### Kansas Families Honored For Balanced Farming

MANHATTAN, KANSAS — Three Kansas couples were honored for balanced farming and family living at the recent annual meeting of the Kansas State Chamber of Commerce. They were Mr. and Mrs. Lester Conner of Lyons, Mr. and Mrs. Nathan Grimm of Morrill and Mr. and Mrs. Elmo St. Pierre of Concordia.

"All of these families made marked improvement in the last few years in farming and have improved their homes, which is the goal in our program," said L. C. Williams, dean of Kansas State College Extension Service. "They all started with a soil building program after they had stopped erosion of their land. Then they developed enterprises that gave them enough volume for profitable farming."



(Photo—Courtesy Soil Conservation Service, U.S.D.A.)

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## American Potash First Quarter Sales, Earnings Show Gain

LOS ANGELES—Sales and earnings of American Potash and Chemical Corp. in the first quarter of 1955 are substantially higher than those of the comparable period a year ago, Mr. Colefax, president, told the annual meeting of the company's shareholders.

For the three months ended March 31, 1955, net sales were \$6,510,000, compared with \$5,923,000 for the first quarter of 1954. Mr. Colefax stated that production of the company's principal products also increased.

After all charges, including provision for federal taxes on income, net income for the first three months of 1955 amounted to \$836,634. After deducting preferred dividend requirements, the earnings were equal to \$3.33 per share on the 585,063 shares of Class A and Class B stock outstanding on March 31. For the first quarter of 1954, net income was \$531,000, equal after preferred dividends to \$1.01 per share on the 431,227 shares of stock outstanding on March 31, 1954.

Since December 31, 1954, the Class A stock outstanding has increased by 1,079 shares reflecting chiefly payment of a 10% stock dividend and completion of conversion of the Series Preferred Stock.

Mr. Colefax stated that the higher sales combined with lower production costs accounted for the gain in earnings. He attributed the reduction in costs to greater efficiency in operations and to the improvements made in recent years to American Potash Chemical Corp.'s main plant at Trona, Cal.

Shareholders were informed that the round was broken on March 1 for the lithium chemicals plant being constructed at San Antonio, Texas. The plant will be owned by American Lithium Chemicals, Inc., 50.1% of whose stock is held by American Potash & Chemical Corp.

Mr. Colefax said a long-term contract has been signed with Pacific Gas & Electric Company to supply natural gas to the plant at Trona. Service is scheduled to begin late in 1955 and by June, 1957, it is expected that natural gas will have replaced fuel oil for approximately 90% of the plant's requirements. The new arrangement will produce substantial savings in fuel costs, Mr. Colefax said.

Shareholders reelected all directors for the ensuing year.

## House Group Approves Woolley Support Study

WASHINGTON—A House agriculture sub-committee recently approved a measure, previously passed by the Senate, which would order a study by U.S. Department of Agriculture of a new technique in tobacco price support controls. This resolution would put the basis of tobacco price supports on a per pound basis rather than the per acre yield. Trade sources here forecast that this proposal will probably be adopted by Congress after the USDA completes its study.

## HOFFMAN APPOINTMENT

NEW YORK—Clare F. Saltz has been appointed manager of the ordnance equipment division of the U.S. Ordnance Machinery Corp., according to Revis L. Stephenson, vice president. Mr. Saltz, a chemical engineer, has 13 years of ordnance experience in production maintenance and safety with both the government and industry. He has also supervised ordnance plant construction.

## Study Shows Weeds On Increase in Northwest Manitoba

WINNIPEG—A 2-year study of provincial weed problems by the Manitoba Weeds Commission indicates that weeds are still on the increase on more than 50% of the farms in the area surveyed.

This area covers northwestern Manitoba from just south of the Riding Mountains northward, including the Swan River Valley. The soil within this area is varied in character but is generally black-earth to gray-wooded.

The Weeds Commission was assisted in its survey by United Grain Growers, Ltd., Line Elevators Farm Service and Manitoba Pool Elevators. Some 321 farmers, representing more than 1½ million acres of cultivated land, co-operated by returning questionnaires. Somewhat less than half the farmers

replied that they considered weeds a serious problem on their farms. However, 163 farmers reported an increase in weeds over the last several years.

Troublesome weeds were listed in order of seriousness as follows: wild oats, wild mustard, quack grass, Canada thistle and perennial sow thistle.

While 53% of the farmers rated wild oats the most troublesome and difficult weed to control, some farmers stated that this weed was less serious on their farms than it was a few years ago.

As to wild oats control, more than 75% of the farmers replying depended upon late fall cultivation with seeding delayed to destroy one or two growths of the weed and then seeding to barley. A goodly number said that the previous year's summerfallow was being handled as if it was host to wild oats.

Some farmers found fall rye helpful and a few stressed the need for mowing a polluted crop for feed

rather than permitting the wild oat seed to ripen and shed.

H. E. Wood, commission chairman, said that the number of farmers using grass-legume mixtures for wild oat control was "regrettably few."

## Darcy M. Sater Joins Chas. H. Lilly Co.

SEATTLE—Appointment of Darcy M. Sater of Yakima as manager of the seed division of the Chas. H. Lilly Co., has been announced in Seattle by C. F. Larsen, president of Lilly's. Mr. Sater formerly was associated with the Chas. H. Lilly Co. for 15 years in its seed operations and as manager of the firm's Craigmont, Idaho, and Yakima, Wash., branches.

For the last three years he has been an operating partner in the Sater-Bonn Co. of Yakima, a seed concern. As manager of the Lilly seed division Mr. Sater succeeds J. C. Jones, who has resigned.

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WAD 5636



## MARGINAL FARM STUDY

(Continued from page 1)

perience developed. Behind this program there is a suspicion that the aim of the administration is to turn back many farm areas, which are unsuitable for production, to pasture and woodland. Additionally, it is felt that the aim will be to consolidate some farms into economic units so that the individual can profit by information from the extension service and utilize the land more efficiently, at the same time improving his income.

Mr. Benson sets forth a 15-point program involving a broad approach to problems existing in their most serious aspect in the southeast and lapping over in a county band running as far north as Pennsylvania, the southern counties of the lake states and some parts of Minnesota, Michigan and Wisconsin.

The program, as detailed by Mr. Benson, contains the following points:

1. Expand and adapt agricultural extension work to meet the needs of low income farmers and part-time farmers.
2. Develop needed research in farm and home management, human nutrition, population, marketing and in evaluating experience gained by the pilot program.
3. Provide additional credit for low income farmers, and extend Farmers Home Administration services to part-time farmers.
4. Increase technical assistance, such as provided by the Soil Conservation Service, to low income farmers.
5. Request the Department of Health, Education and Welfare to encourage the states to expand voca-

tional training in rural areas of low income, instituting as many as 12 pilot operations during the school term starting in the fall of 1955 in order to gain experience needed for broad expansion of this extremely vital part of the total program.

6. Request the Department of Labor to strengthen the Employment Service in rural areas and further to adapt it to the needs of rural people. Areas of rural underemployment should be identified and included as part of the labor market services to make occupational adjustments easier.

7. Undertake to get more effective programs developed to induce the expansion of industry in rural low-income areas, using facilities of the Departments of Labor and Commerce and the Office of Defense Mobilization.

8. Call upon the state agricultural colleges to make substantial research and extension contributions to a cooperative venture, employing in part the increased federal funds

already included in the 1956 budget request.

9. Aggressively encourage farm business and other leadership to assume local responsibility and to unite in efforts to aid in the development of agriculture's human resources, using trade area and community development programs to increase incomes of farmers and raise living standards. Expansion of these "self-help" programs should be assisted by the various governmental agencies concerned.

Certain actions by the Congress will be needed in order that this program may be effectively launched:

10. Farmers Home Administration should be authorized to make loans to part-time farmers.

11. Legislation should be enacted which would concentrate special funds outside the present agricultural extension formula for the purpose of conducting pilot programs and extending assistance to low-income farmers.

12. Appropriation requests are being recommended for your consideration in addition to those in the regular budget for fiscal 1956, to initiate work proposed in this report involving extension, research, soil conservation, farm loans and related services.

13. Lending authority of about \$30 million should be provided for the Farmers Home Administration Draft legislation and budget estimates relating to those recommendations have been prepared.

Certain administrative arrangements will also be required:

14. The secretary of agriculture should coordinate the administration of the total program. A principal official of the department should be designated to assume the direct administration of the program. Moreover, two coordinating committees will be needed: (a) An interdepartmental committee, and (b) A committee within the Department of Agriculture to coordinate the work of its participating agencies.

15. The secretary of agriculture should be required, in September of each year beginning 1956, to submit a comprehensive report to the President on the progress of activities directed toward alleviating the problems of low income farmers and plans for advancing the program, thus regularly focusing attention on the program and fixing responsibility for its administration.

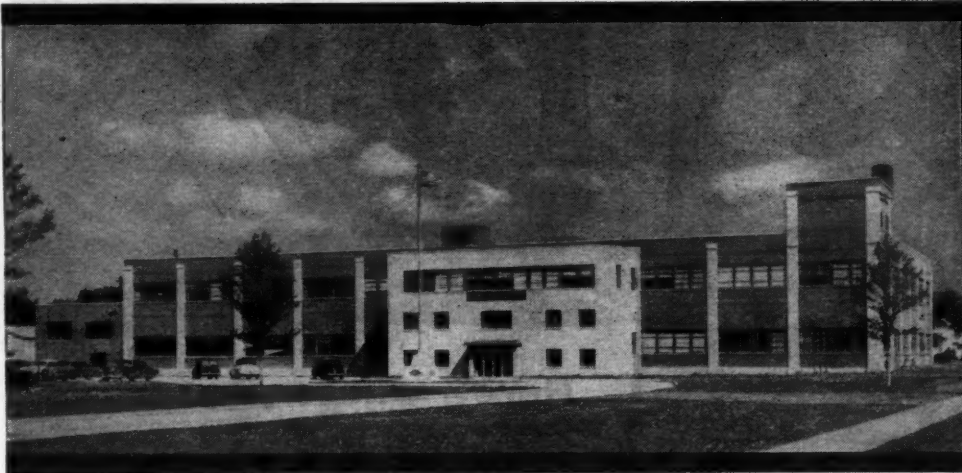
In the new proposal there is some interlocking with the over-all Benson approach to the farm support price program. This is shown in his letter to the President in which he says, "Price support programs are of little help to most of these people. Production per farm is so low that only a few dollars can be added to incomes by price support."

At another point the secretary touches on the problem of farms unsuited to cultivation, a point long supported by land use economists within the Department of Agriculture. In the body of the report Mr. Benson says, "There are several areas where poor soil, rough topography or other natural handicaps make farming an almost hopeless struggle . . . in many cases the real solution would be to make it possible for families who wish to do so to relocate . . . and let the land go back to forest, grazing, watershed protection . . . or similar uses . . . public and private acquisition of such lands has accomplished like objectives."

### Sulfur Production

WASHINGTON — The domestic sulfur industry produced 446,512 tons of native sulfur and 33,200 tons of recovered sulfur (of a purity of 97% or greater) during January, according to reports of producers to the Bureau of Mines, U.S. Department of the Interior. Producers' stocks of native sulfur decreased from the previous month and at the end of January totaled 3,214,443 tons.

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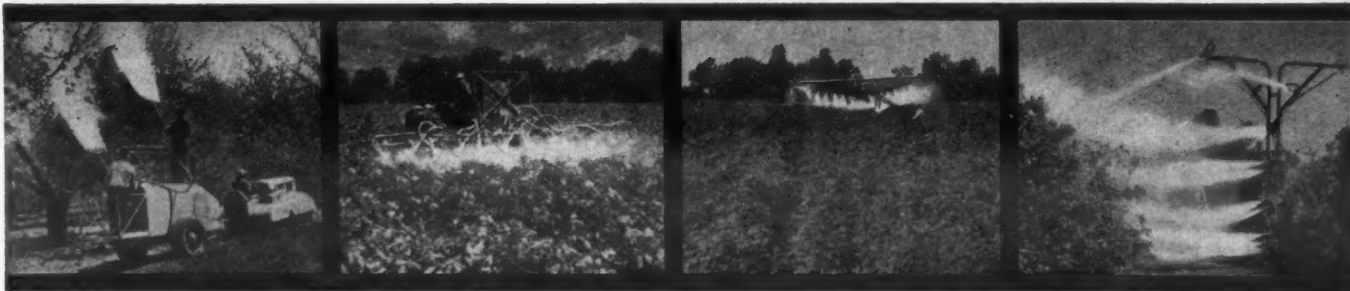


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## NORTHERN CHEMICAL INDUSTRIES

(Continued from page 1)

and paper industry, superphosphate and sulphate of ammonia for domestic and export agricultural needs, the company stated.

The plant will adjoin the present unit built in 1943 at Kidders Point, Searsport, Maine. Completion is scheduled for Jan. 1, 1956, preceding by about 60 days NCI's completion date for its 125 ton per day anhydrous ammonia and nitric acid facilities now being constructed by the Girdler Co., Louisville. Upon completion of this plant, NCI will be the second largest producer of sulphuric acid in the New England states and will have a crude sulphur requirement of about 25,000 tons per annum.

Cost of the new acid facilities will increase NCI's investment in its chemical center at Searsport by some \$650,000, bringing to a total of ten million dollars the company will have invested in new facilities during the 1955-1956 period.

## NEW CALUMET PLANT

(Continued from page 1)

to produce 300 tons a day of anhydrous ammonia, according to J. H. Forrester, company president.

The hydrogen used by Calumet will be a by-product of new high-octane gasoline units at two nearby refineries.

The ammonia to be produced by Calumet would supply 100 lb. nitrogen an acre for more than 1,750,000 acres of farm land. One hundred tons of anhydrous ammonia a day will be converted into nitrogen solutions.

About 575 men are expected to be employed on plant construction at the peak of activity. Fluor Corp. is general contractor for construction of the facilities.

Sinclair Refining Company's East Chicago refinery and the Whiting refinery of Standard Oil Co. (Indiana) will supply the new plant with the by-product hydrogen by pipeline. Standard Oil will operate the plant for Calumet Nitrogen Products, a new company organized recently by Sinclair and Standard.

Mr. Forrester said that the new plant will be staffed with personnel from Standard Oil's Whiting refinery. Of about 80 Whiting refinery people assigned to the new nitrogen products plant, about half will be operators and about half supervisors, technicians, mechanics, laborers, office personnel and guards.

According to E. W. Griscom, vice president of Calumet Nitrogen Products, products of the new plant will be marketed for the most part in the Midwest. The two companies will sell their parts of the output independently under their own brands.

Ammonia produced in the plant will be stored in seven refrigerated storage spheres with a capacity of 19,000 tons. Each sphere is 65 ft. in diameter. For shipments, a 20-spot railroad tank car loading rack and a two-spot tank truck rack will be provided. There will also be facilities to store about 200 railroad tank cars in preparation for the February-May peak shipping season every year.

Construction of the new plant will require 3,000 tons of steel and 30 miles of pipe.

Among those who took part in the brief ground breaking ceremonies were J. H. Forrester, president, and E. W. Griscom, vice president, Calumet Nitrogen Products Co.; Vernon Anderson, mayor of Hammond; Dr. A. R. Bertrand, Purdue University agronomist, and Dr. Roger H. Bray, University of Illinois agronomist.

## CENTRAL FARMERS

(Continued from page 1)

The production will be used primarily for supplying Midwest members of Central Farmers. Granulation and mixture with nitrogen and potash would be accomplished at the plants of these member cooperatives.

Central Farmers does not plan immediately to produce diammonium phosphates, although member cooperatives can do so eventually by using calcium metaphosphates produced at the proposed Georgetown operation, according to an official of the company.

High grade phosphate rock would be shipped from the site to the Midwest cooperatives for acidulation and production of treble superphosphates.

A new type beneficiation plant for upgrading low value phosphatic shales will be erected at the Georgetown Canyon site. A pilot beneficiation plant now is under construction there to test results obtained in a laboratory operation conducted last year for Central Farmers by the Colorado School of Mines.

To date, exploratory work has shown reserves of more than 6,750,000 tons of good grade phosphatic rock on the 2,375 acres controlled by Central Farmers.

Soil, Water Loans  
Top \$11 Million  
In Seven Months

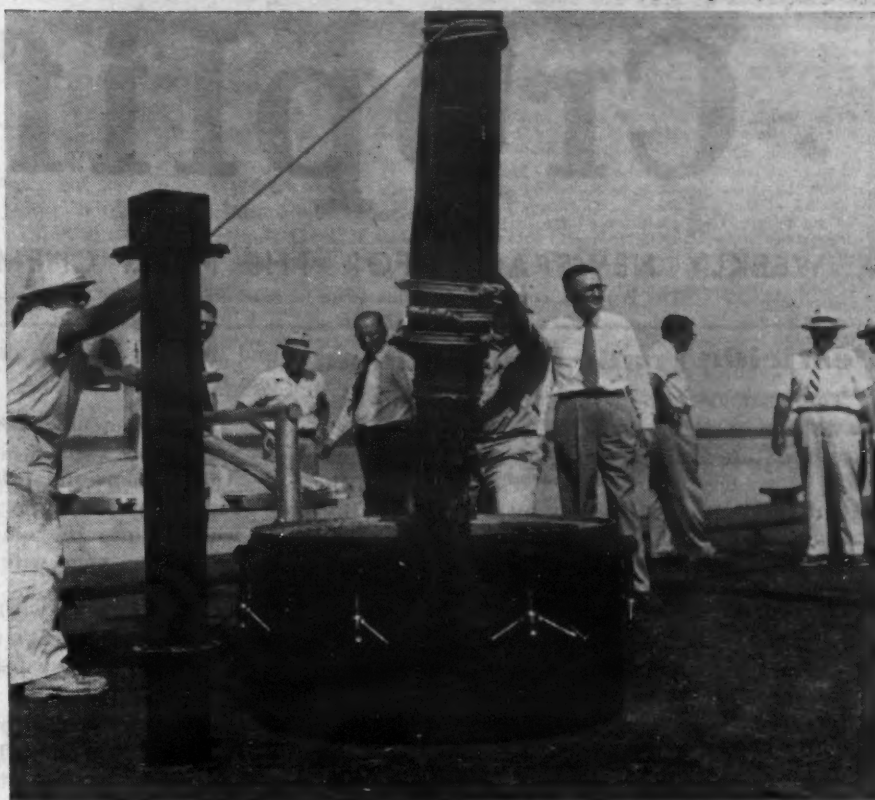
WASHINGTON — During the first seven months of the Farmers Home Administration's new soil and water conservation program, 2,195 farmers and ranchers borrowed \$11,881,000 to improve their soil and water resources, the U.S. Department of Agriculture has announced.

In addition, county offices throughout the country have reported to the agency's administrator, R. B. McLeish, that they are processing loans totaling \$3,224,000 and are receiving applications at the rate of approximately 300 a week.

The figures cover the period from September 27, 1954, when the agency began making and insuring soil and water conservation loans, to April 29, 1955. From July 1, 1954, to September 27, 1954, the agency had made 522 water facilities loans for \$2,626,000.

## LION OIL DIVIDEND

EL DORADO, ARK.—Lion Oil Co. has declared a regular quarterly dividend of 50¢ per share on the capital stock of the company to be paid June 15, 1955, to holders of capital stock of record at the close of business May 31, 1955. T. M. Martin, president, has announced.



**HOTTEST THING ON THE RIVER**—Hot liquid sulphur is poured into a 2,500 ton capacity insulated barge for shipment to a customer 1,100 miles up the Mississippi. This new method of transporting large quantities of sulphur over long distance water routes was inaugurated recently at Port Sulphur, La., storage and shipping point for Freeport Sulphur Co.'s marshland mines. Watching the loading operations are officials of Coyle Lines, Inc. and Ingalls Shipbuilding Corp., operators and builders of the barges respectively, and of Freeport Sulphur. See story on page 1 of this issue.

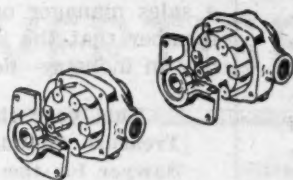
## SULFUR SHIPMENT

(Continued from page 1)

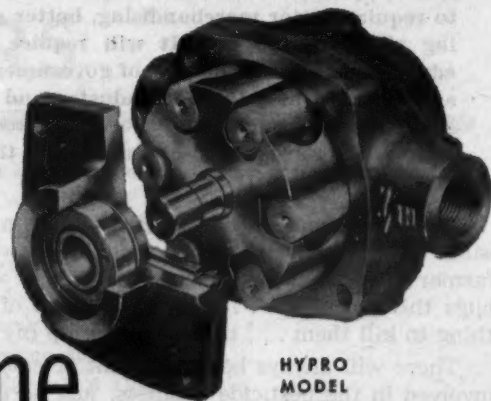
miles and eight days away. The sulphur was loaded at Freeport Sulphur Co.'s docks at Port Sulphur, 45 miles south of New Orleans. It will be used in National Lead Company's titanium division plant at St. Louis.

The three barges, built by Ingalls Shipbuilding Corp. and operated by Coyle Lines, Inc., are insulated with four-inch-thick foam glass and are equipped with boilers and heating coils to maintain a minimum temperature of 260° F., 20 degrees above the melting point of sulphur.

The sulphur is piped into the barges in the same liquid state in which it is mined—instead of being cooled and solidified and then shipped in solid chunks. Dust loss is prevented, moisture is avoided, contamination is reduced, and remelting at the consumption point is eliminated, the firm said.



# only two came home

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A WEEKLY NEWSPAPER FOR THE FARM CHEMICAL INDUSTRY

The regional circulation of this issue is concentrated in the Northeastern states.

## Pesticide Trade Looks Ahead

The pesticide trade was happy to hear the optimistic appraisal of Dr. Clyde F. Smith, North Carolina State College, who told a group of formulators a few days ago that a 100% increase in the amount of pesticides bought by farmers in that state may be "safely anticipated" within the next 10 years. If this estimate is true in North Carolina, then it could well be projected to most other states, too.

Speaking before the first annual meeting of the Carolinas-Virginia Pesticide Formulators Association, Dr. Smith based his estimates on the development of more effective insecticides than have ever been known before; the continuance of educational programs in connection with the use of insecticides and their contribution to the economic welfare of agriculture; and the continuance of improved agricultural practices generally. His points appear to be well founded.

Other factors which will contribute to an ever-increasing use of pesticides, he said, include the necessity for raising more food to provide for the nation's increasing population, and recognition on the part of more and more farmers that use of these products means more money in the bank at the end of the crop year.

The trade is looking confidently to the 1955 season as a "coming out of the woods" year. Hope is high that demand for pesticidal products: insecticides, fungicides, weed killers and rodenticides, will be brisk enough that prices may remain firm and a respectable profit can be realized by the time the fall convention time rolls around.

We regard Dr. Smith's prediction as being nearer the truth than most people realize. But let's not kid ourselves . . . a 100% increase in use of products like pesticides won't come automatically. It is going to require better merchandising, better selling all down the line. It will require the educational efforts not only of governmental agencies, but also those of industry and the dealers whose sales talks are made face to face with the actual consumer of these materials.

If real volume is to be realized, there must be sales beyond the emergency-type order where a farmer calls in and says excitedly, "We got a jillion bugs this morning . . . gotta have a lot of something to kill them . . . they're eating up my crop!"

There will always be an element of emergency involved in the pesticide business, just as there is in the operation of a fire department or in the use of an insurance policy. The optimum value of pesticides will be realized when farmers at last learn to make preventive applications and to keep a reasonable supply of pesticides on hand.

But everyone knows that it is a major order to change the habits of farmers. They still want to wait until the munching of insects can be heard in the field before ordering their insecticides; and to "sell" a different approach is a formidable assignment for any one to tackle. But it isn't impossible. Farmers are now becoming accustomed to doing things in a more efficient manner and there is no reason why they should not eventually consider the use of pesticides to be as natural and as essential as plowing fields in the spring.

## The World Keeps Moving On

Lessons in selling and merchandising are numerous, if one keeps his eyes open for new ideas; but one thing about advertising that no one can afford to forget, is the fact that the world keeps on moving. The following essay on the subject points out the lesson very well. Its theme is applicable to the fertilizer and insecticide trade as well as to most other businesses.

The writer says that if you are an ordinary guy, you'll have back in your bedroom, an old necktie. It is probably just as fresh, unwrinkled

and unspotted as the day you bought it. It was one of your favorites.

You remember the pride you took in your good taste when you picked it out. And perhaps the prim glance of approval that your secretary gave you when you wore it into the office for the first time. Why, even your wife liked it!

But you haven't worn it for a long time, and for just one reason. It's an old necktie! You liked it so much and you wore it so often that you got tired of it.

But if you were to put it on again tomorrow morning it would again be a new necktie to most of the people you meet. They've never seen it before or have forgotten it.

Every sales manager, salesman or advertising man has old neckties hanging in his closet. They're just as good as new but have been neglected or cast aside. They're ideas — basics and fundamentals, sales appeals and advertising themes — that haven't been used for so long that the audience has either forgotten them or never heard of them.

It took ages for men to discover that the world moves. It seems to take as long for some of us to recognize that our audiences, that part of the world with which we are most concerned, don't stand still.

Sales departments often plan their campaigns, and advertisers often plan and write their advertising, as if audiences were static. And as if the audiences had such retentive memories that they remember everything that was ever told them and will hold it against anyone who tries to tell them again.

Highly recommended, as required reading, is the obituary page, the marriage license column and the birth record. And if you're a salesman, a sales manager or an advertising manager, remember that the same thing is happening every day in industry—deaths, births, marriages.

This year thousands of boys will read *Treasure Island*, *Robinson Crusoe* or *Tom Sawyer* for the first time, old books to us, but they'll be just as new to these youngsters of 1955 as they were to us a generation or two ago.

Fashions change, though they often run in circles and get back to where they started. Fundamentals never change, and they seldom lose their force or value through repetition. The man who is afraid of repeating himself has probably never said anything worth repeating.

Your audience, your customers, are changing all the time. You can't see the hour hand move, but it completes its cycle twice a day.

And sometimes remember to trot out the old neckties that so many customers have never seen.

Probably in no industry is the above message more true. The development of the use of chemicals in agriculture offers constantly changing scenery, so that everyone in the trade has new and worthwhile things to talk about.

All of us should always be alert to the changing audience and should never forget nor neglect to retell the story of how the "chemical revolution" in agriculture is changing the entire farm picture.

## Quote

Much of the \$2.73 billion now being spent by the chemical industry is \$57 million for new research facilities. It is from such facilities that current expansion got its start. This new wealth is financed by private funds, accumulated as savings after payment of taxes. Without such investment this new wealth could not be created.—Manufacturing Chemists Assn. Report.



CROPLIFE is a controlled circulation journal mailed to those responsible for the production and distribution of fertilizer and other farm chemicals and to retail dealers of the agricultural chemical industry in the U.S. To those not on the controlled list, CROPLIFE is available at \$5 for one year, \$9 for two years (\$8 a year outside the U.S. and possessions). Single copy price, 25¢.

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# MEETING MEMOS

May 19—Fertilizer Section, 25th Annual North Carolina Safety Conference, Robert E. Lee Hotel, Winston Salem, N.C.; William C. Creel, Safety Director, Department of Labor, State of North Carolina, Raleigh, Chairman.

June 2—South Carolina Fertilizer Meeting, Sandhill Experiment Station, near Columbia, S.C.

June 3—Fertilizer Section, Virginia State Safety Assn., Jefferson Hotel, Richmond, Va.; William C. Richardson, Southern States Cooperative, Richmond, Chairman.

June 12—Executive Committee, Fertilizer Section, National Safety Council, Roanoke, Va.; Thos. J. Clarke, GLF Exchange, Ithaca, N.Y., Chairman.

June 12-15—Joint meeting, American Plant Food Council, Inc. and National Fertilizer Assn., Greenbrier Hotel, White Sulphur Springs, W. Va.; Paul T. Trullitt, American Plant Food Council, 910 17th St. N.W., Washington, D.C., in charge of registration.

June 21—Western Agricultural Chemicals Assn., Spring Meeting, Clark Hotel, Los Angeles; C. O. Barnard, 2466 Kenwood Ave., San Jose 28, Cal., Secretary.

June 22—Pacific Slope Branch, Entomological Society of America, Mission Inn, Riverside, Cal.

June 28-30—Sixth Annual Pacific Northwest Plant Food Assn., Re-

gional Fertilizer Conference, Boise Hotel, Boise, Idaho; Leon S. Jackson, 702 Lewis Bldg., Portland, Ore., Secretary.

July 5-8—Plant Food Producers of Eastern Canada, Bigwin Inn, Muskoka, Canada.

July 14-15—Southwest Fertilizer Conference and Grade Meeting, Buccaneer Hotel, Galveston, Texas.

Aug. 8-10—Summer Meeting of North Central Division, American Phytopathological Society, Wooster, Ohio; further information from H. C. Young, Dept. of Botany & Plant Pathology, Ohio Agricultural Experiment Station, Wooster, Ohio.

Aug. 9-11—Ohio Pesticide Institute Meeting and Field Tour, Wooster, Ohio; Dr. J. D. Wilson, Ohio Agricultural Experiment Station, Wooster, Secretary.

Aug. 10—Kentucky Fertilizer Conference; Guilford Theatre, University of Kentucky, Lexington.

Aug. 15—National Joint Committee on Fertilizer Application, Cooperative Meeting with the American Society of Agronomy, University of California, Davis Campus.

Aug. 15-19—American Society of Agronomy and Soil Science Society of America, University of California, Davis Campus.

Aug. 15-20—Farm & Home Mechanization Pageant, Michigan State College, East Lansing, Mich.

Sept. 7-9—National Agricultural Chemicals Assn., Spring Lake, N.J.; Lea S. Hitchner, NAO Executive Secretary, 1145 19th St. N.W., Washington 6, D.C.

Sept. 7-9—Ninth Annual Beltwide Texas A&M College, National Cotton Council of America, Box 18,

Cotton Mechanization Conference, Memphis 1, Tenn.

Oct. 17-18—Fertilizer Section, National Safety Congress, LaSalle Hotel, Chicago; Thomas J. Clarke, Chairman.

Nov. 2-3—Annual Convention, Pacific Northwest Plant Food Assn., Pilot Butte Inn, Bend, Ore.; Leon S. Jackson, 702 Lewis Bldg., Portland, Ore., Secretary.

Nov. 3-4—Northeastern Division, American Phytopathological Society, Eastern States Farmers Exchange, Inc., 26 Central St., West Springfield, Mass. B. H. Davis, Department of Plant Pathology, Rutgers, University, New Brunswick, N.J., secretary.

Nov. 7-8—California Fertilizer Assn., Thirty Second Annual Convention, Hotel Mark Hopkins, San Francisco; Sidney H. Bierly, Executive Secretary & Manager, 475 Huntington Drive, San Marino, Cal.

Nov. 29-Dec. 2—Entomological Society of America, Netherlands Plaza Hotel, Cincinnati.

Dec. 5-7—Agricultural Ammonia Institute, Kansas City; Jack F. Oriswell, Executive Vice President, Claridge Hotel, Memphis, Tenn.

Dec. 15-16—Beltwide Cotton Production Conference, Hotel Peabody, Memphis, Sponsored by the National Cotton Council.

Dec. 28-30—American Phytopathological Society, Atlanta, Ga.; Glenn S. Pound, University of Wisconsin, Madison, Wis., Secretary.

## 1956

Jan. 4-6—Weed Society of America, Charter Meeting, Hotel New Yorker, New York, W. C. Shaw, U.S. Department of Agriculture, Beltsville, Md., Secretary-Treasurer.

Jan. 26-29—Agricultural Aircraft Assn., Inc., Sixth Annual Convention, Wilton Hotel, Long Beach, Cal.; Wanda Branstetter, Route 3, Box 1077, Sacramento, Cal., Executive Secretary.

Feb. 15-17—Western Weed Control Conference, Sacramento and Davis,

# Classified Ads

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TUCSON—The national 4-H entomology program has been accepted for Arizona 4-H'ers. Hercules Powder Co. is the award donor.

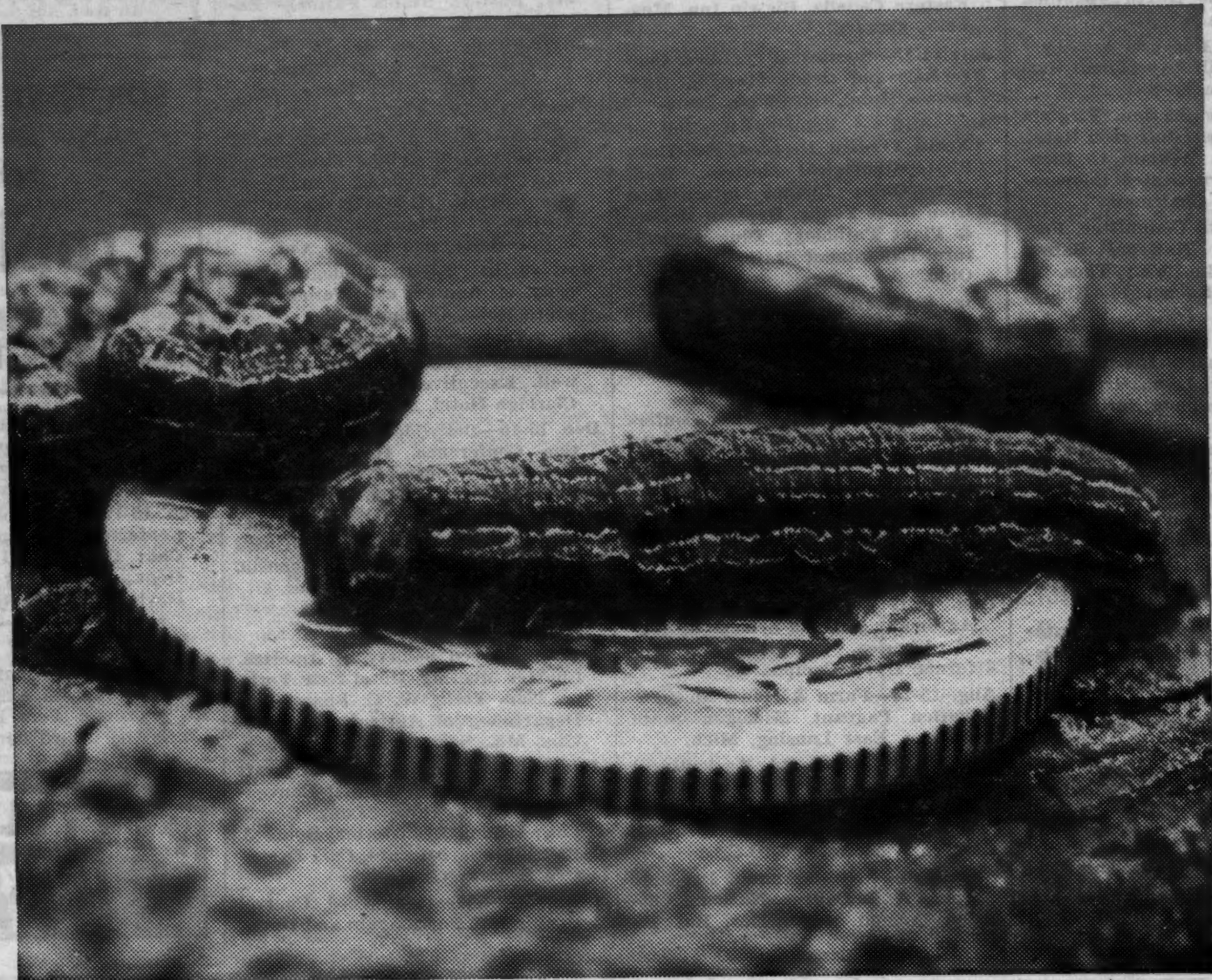
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